

PRS-TTP-89-001  
JANUARY 1989



**FOREIGN  
BROADCAST  
INFORMATION  
SERVICE**

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# ***JPRS Report***

## **Telecommunications**

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# Telecommunications

JPRS-TTP-89-001

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## MOZAMBIQUE

**TV/Radio Cooperation Accord With USSR Signed**  
*55000005 Maputo NOTICIAS in Portuguese*  
16 Nov 88 p 8

[Text] Minister of Information Teodato Hunguana has stated that cooperating in the area of information is equivalent to supporting Mozambique's development in a strategic area, which is a fundamental component of the Economic Recovery Program. Hunguana was speaking yesterday [15 November 1988] in Maputo during the ceremony in which the intergovernmental agreement was signed between our country and the Soviet Union regarding reinforcing material and technical support for radio and television broadcasting in the People's Republic of Mozambique. This agreement calls for free assistance amounting to a total of 4 million rubles in the period from 1989 to 1992.

He stated that the extremely critical condition of the present equipment, whose useful life expectancy expired long ago, demands urgent intervention which our government, unfortunately, is not in a position to provide immediately. Teodato Hunguana specified: "The war of aggression that is seeking to destroy our country is presently imposing other priorities on us in an almost absolute fashion."

Nevertheless, he considered that the demands being made on the Ministry of Information are daily and permanent, and it is not easy to make everyone understand the objective limits of the response capability that we have available to us.

The chief of the Ministry of Information stated that international cooperation in the sector that he heads is crucial at this moment. "We consider it to be very important now because it will make it possible for us to avoid collapse and paralysis. It will make it possible for us to keep the mass communications media operating," he stressed.

Teodato Hunguana added that the present agreement opens up avenues for the solution of some basic problems in the area of information. He expressed his conviction that, with the support from the USSR, from other countries, and from international institutions saying, "We will certainly be able to solve the pressing problems that the sector is facing."

Finally, the minister of information expressed the gratitude of the Government of Mozambique to the Soviet government for the important step in cooperation that both governments are taking.

For his part, the ambassador of the USSR in Maputo, Nikolai Dybenko, who signed the agreement as the representative of the government of his country, stated that the ceremony is obvious proof of the growth in the cooperative relations that exist between the two nations.

He asserted that the Soviet Union will do everything possible to bring about what has been publicly proclaimed, and he stressed the importance of the Ministry of Information in mobilizing the people for the fulfillment of the directives that have been laid out by the Frelimo Party.

Among other activities, the agreement calls for the USSR to send equipment and technicians to help in the field of radio and television, and in the carrying out of research studies and projects.

## NIGER

**New Receiving Station Dedicated at Agrhymet**  
*55000004 Niamey LE SAHEL in French* 1 Nov 88 p 8

[Text] An official ceremony was held yesterday morning at the Agrhymet center to inaugurate the NOAA/AVHRR [National Aeronautics and Atmospheric Administration/Advanced Very-High-Resolution Radiometer] satellite receiving station.

The ceremony was attended by Minister of Higher Education, Research, and Technology Abache Chaibou, who is serving as interim minister of agriculture and environment; representatives of the Embassies of France and the United States, the French Ministry of Cooperation, and international and subregional institutions; diplomats accredited to our country; and a number of other invited guests.

In the address he delivered on this occasion, the director general at Agrhymet said that this HRPT [High Resolution Picture Transmission] receiving station serves as a symbol of the active solidarity of the French people and authorities with the peoples in the Sahel who have suffered from the drought.

It represents an essential complement to the methods of analysis currently being used, and will provide new prospects in the search for solutions to the achievement of the goals set forth in the Agrhymet program.

Because of its geographic position (Niamey), the director general at Agrhymet added speaking on behalf of the secretary general of the ICDCS [Permanent Interstate Committee for Drought Control in the Sahel], the station will be the only one capable of receiving NOAA/AVHRR images in the Sahel zone. It will also make it possible to use images in real time, thus providing an undeniable advantage to those familiar with the processing delays involved in requesting and transmitting satellite data.

In conclusion, the secretary general thanked all the partners in the Agrhymet program, the French Ministry of Cooperation, USAID, Italy, the Netherlands, the UNDP and the FED [European Development Fund], in particular, for the tireless efforts expended to help the countries in the subregion.

The representative of the French Ministry of Cooperation then took the floor to say that all the experts in satellite observation of the earth agree that the American NOAA satellites are the best adapted to the surveillance of vegetation in real time and on a large scale.

This station, the French representative went on to say, will be capable of thorough studies of the overall vegetation cover, exhaustive assessment of the development

of a farm season, and above all, detection of all weather accidents and insect plagues which might in the short run or at the end of the productive cycle threaten farm production, as soon as these incidents occur.

The desire of France, its representative said in conclusion, is to organize the transfer of the responsibility for this satellite equipment to personnel from the member countries of the ICDCS.

**Joint Research Projects With Japan Set Up**  
55200012 Toronto *THE TORONTO STAR* in English  
17 Nov p C40

[Article: "Canada-Japan Embarking on Huge Research Program"]

[Text] Two years after the prime ministers of Canada and Japan signed a science and technology co-operation agreement, the two countries are embarking on an ambitious joint research program.

The program will involve as many as 500 researchers from both countries working on more than 90 individual projects. And Canadian officials in Japan familiar with the program say hundreds more projects could begin soon.

"We have reached a very interesting conjuncture in science and technology co-operation with Japan, where several factors are bringing programs discussed in an informal way for more than 20 years to real fruition," said a senior Canadian official in Tokyo.

**Visible successes**

Visible Canadian science and technology successes, such as the Canadarm aboard U.S. space shuttles, and regular visits to Japan by Canadian astronauts have helped convince the Japanese that Canada can contribute to joint projects in space development, biotechnology, communications technology and materials science.

"I think the Japanese have recognized that while they have leadership in technological development, they are weak in basic science and see that without a basic science base they cannot remain competitive," the official said. "So they are looking abroad to the United States, Western Europe and Canada for joint development."

For Canada, tapping the industrial and technological expertise and the financial might of Japan helps launch Canadian projects that might be unable to find adequate funding or expertise at home.

"We have both discovered that 'big science' cannot be simply a national project; it requires international co-operation, and that has led to this point where more and more projects are being started," the official said.

At a recent Tokyo meeting of 12 Canadian senior research managers and directors and more than 100 of their Japanese counterparts, a "space panel" was set up to manage aerospace co-operation between the two countries. Dozens of other areas for potential research also were identified, another official said.

In February, a multi-million-dollar Canadian ion mass spectrometer, used to determine aspects of atmospheric conditions, will be placed in orbit on a Japanese satellite. The two countries will share some data from the instrument, a Canadian science and technology expert said.

Other areas of continuing co-operation include a project for speech synthesis by computer and an oceanographic observation project, which will use satellites to examine changes in the global climate in the Pacific region.

The two countries are also looking at more down-to-earth projects such as road paving in cold areas, arctic marine transportation and artificial cell development.

Researchers can initiate projects under the agreement. But a senior panel of Canadian and Japanese experts also is examining areas in which both countries have expertise to expand the projects even further. It will report its findings at a special meeting in Canada early next year.

**Space technology**

Meanwhile, a space technology mission by 22 Japanese companies led by Nissan Aerospace has just returned from Canada. During the 10-day visit several projects were identified in Vancouver, Toronto, Ottawa and Montreal that should turn, into direct company-to-company development ventures. And a Canadian biotechnology mission to Japan is heading in the same positive direction, Canadian officials said.

"The Japanese have simply been overwhelmed by the opportunities for co-operative research, but until we had the impetus of the 1986 bilateral treaty, it was extremely difficult to get them to realize how much we can work together," the official said.

**Circronics Opens New Printed Circuit Board Plant**

55200009 Ottawa *THE OTTAWA CITIZEN* in English  
4 Oct 88 p B3

[Article by Doug Kelly]

[Text] Circronics, a division of Gandalf Technologies Inc., opened a \$5-million printed circuit board plant in Nepean Monday to meet its parent company's growing needs and boost sales to other firms.

The Concourse Gate plant "represents a substantial investment in the future of Canadian high-technology business," said Gandalf president James Bailey.

The 1,672-square-meter plant increases Circronics's capacity by four fold, compared to its old location on Nepean's Bentley Avenue.

Previously, Circronics supplied about 70 per cent of Gandalf's circuit board requirements. With the larger plant, which is adjacent to Gandalf's headquarters on Colonnade Road, that figure will rise to almost 100 per cent.

Sales to Quebec and Ontario companies, including local firms such as Mitel Corp., Northern Telecom, and Newbridge, are also expected to increase.

At full capacity, the new plant will make enough boards daily to cover a 140-sq.-m. area, or two racquetball courts.

Printed circuit boards are at the heart of a variety of high-tech products, including computers and data communications equipment.

The new plant is also able to produce double-sided multilayer boards, which can do much more than similar-sized conventional boards. As a result, equipment manufacturers can build increasingly complex products without increasing their size.

The plant will employ 50 people, although that figure is expected to rise to 70 as Circronics expands.

Bailey said the new plant will allow Gandalf to make its own boards made faster and cheaper than having them done by an outside firm. It also gives the company more flexibility to change the board's design if need be.

According to Bailey, the facility is a model for printed circuit board manufacturing. It has a class 100,000 clean room, which means that its air has no more than 100,000 particles of matter per cubic meter. By contrast, the air in the average office contains two million particles per cubic meter.

The super-clean environment ensures that the boards can be made without dust or particles, which affects their performance.

The equipment, which includes drilling and plating devices, are the most advanced in North America.

The plant's waste water treatment process is based on technology developed by the University of Toronto. The process a combination of ion exchange and electrowinning to completely remove copper from the waste water. The copper can then be reused.

The building is the third of five facilities planned by Gandalf as part of a \$40-million development scheme on Colonnade Road. The other completed buildings include a 5,374-sq.-m. factory finished in 1981, and a 9,290-sq.-m. R&D center finished last year.

Gandalf bought 14-year-old Circronics in 1982.

**Development Agency To Give Satellite Communications Aid to China**  
*55200010 Windsor THE SATURDAY WINDSOR STAR in English 1 Oct 88 p A15*

[Text] Montreal (CP)—The Canadian International Development Agency will provide \$4.48 million to develop satellite communications in China, federal International Development minister Monique Landry announced this week.

Telesat Canada was given a \$1.5 million project to act as executing agency and be responsible for project management. Spar Aerospace of Montreal will provide special equipment worth \$2.1 million and the rest of the money will cover monitoring, evaluation and contingency costs.

"Canada is internationally recognized for its telecommunications expertise. This collaboration between the Canadian and Chinese public and private sectors illustrates the importance we place on partnership," Landry said.

Telesat will advise China's Ministry of Posts and Telecommunications on how to improve its domestic satellite communications system to better reach isolated parts of the country.

Canadian experts will travel to China and Chinese engineers will take practical training in Canada.

**Bureau, CAB's McCabe Give Views on TV at CRTC Hearings**

**McCabe, Federal Regulator Statements**  
*55200007 Toronto THE GLOBE AND MAIL in English 4 Oct 88 p B5*

[Article by John Partridge]

[Text] Lost revenue and increased spending could cost private TV stations in Southern Ontario \$70-million a year by 1994, the Canadian Association of Broadcasters says.

As a result, the federal broadcast regulator should not add to the conditions attached to the broadcast licenses under which the stations already operate, Michael McCabe, president of the lobby group, said in a speech set for delivery at a Canadian Radio-Television and Telecommunications Commission public hearing in Toronto yesterday.

Mr McCabe's breakdown of the disappearing dollars:

—An erosion of advertising could leave the stations with almost \$13-million a year less in air-time revenue than they have collectively forecast.

- Specialty cable channels that recently went on the air could add to existing audience fragmentation and annually divert \$36-million in advertising.
- Stations could face program costs \$19-million a year over budget—\$4.5 million for Canadian shows and \$14.5-million for foreign products.
- Capital spending on advanced TV technology could collectively cost them almost \$3-million a year more.

In all, Mr McCabe said, the Southern Ontario stations will end up with marginal after-tax profit across the board, "which means that some of them could be in a loss position."

Because of this, he concluded that the stations will be "achieving a great deal if they succeed in committing to their current levels of contribution" to their communities and Canadian broadcasting in general. Hence, the conditions the CRTC imposes on them "should reflect the highly uncertain climate."

Mr McCabe was scheduled to give his speech toward the end of the first day of a major series of hearings the CRTC is holding across the country. At the hearings, most of the nation's private English-language TV stations—network affiliates and independents—will seek to have their licenses renewed for five years effective next September.

It has been eight years or more since many of the stations last had to submit their past performance and future plans to detailed examination by the commission.

The CRTC has in numerous statements made it clear that its emphasis this time will be on Canadian programming in general and local news, public affairs and entertainment shows in particular. It wants the stations to increase their dollar and time commitments in these areas.

However, apparently not wanting to flog the issue to death, CRTC chairman Andre Bureau didn't dwell at great length on those specific expectations in his opening remarks to the standing-room-only crowd of supplicants and observers at the Valhalla Inn.

But he noted that audiences for Canadian stations, as opposed to U.S. stations, have been growing. In Southern Ontario, Mr Bureau said that between 1981 and 1987, the share of total viewing hours won by U.S. TV stations dropped to 20.6 per cent from 31.8 per cent to the benefit of Canadian stations.

And he said this trend has been accelerated by "the Canadianization" of the Canadian Broadcasting Corp. program schedule and the scheduling of Canadian drama programs.

As well, although he noted that the pretax profit margin of private stations in Southern Ontario taken as a group has fallen to 16.1 per cent in 1987 from 18.3 per cent a year earlier—he concluded that the market's financial health is "fairly sound."

Mr Bureau also had a warning for the stations appearing at the Toronto hearings and those that will make their pitches at later sessions elsewhere.

Unless they can provide detailed plans and projections, in terms of both their finances and their program schedules, he said, "the commission will have no alternative but to refuse to renew the licence, or to renew it for a stated period of time during which the licensee must be prepared to propose plans and make commitments. "You will understand that we cannot and will not sign blank cheques."

#### Further Remarks by Regulator

55200007 Toronto THE GLOBE AND MAIL in  
English 5 Oct 88 p B3

[Article by John Partridge]

[Text] A broadcast lobby group's doom-and-gloom forecast for Southern Ontario television stations is "exaggerated" and "alarmist," the chief federal broadcast regulator says.

"I was a little concerned that they were making arguments that could probably be much more appropriate in other markets than Southern Ontario," Andre Bureau, chairman of the Canadian Radio-Television and Telecommunications Commission, said in a interview in Toronto yesterday. "They had no need to be so negative."

Mr Bureau made his remarks during a break from a public hearing in which the CRTC is considering applications for broadcast licence renewals from privately owned English-language TV stations—network affiliates and independents—in Southern Ontario.

He was referring to a presentation made at the hearing late Monday in which the Canadian Association of Broadcasters said that by 1994, a combination of eroded or diverted advertising revenue and unbudgeted cost increases could add up to as much as \$70-million for the stations.

CAB president Michael McCabe told the commission that these no-show dollars could leave stations in the area with marginal after-tax profits as a group, and in some individual cases, with losses.

Mr. McCabe used this scenario to argue that, during the next licence term, which runs from September, 1989, to September, 1994, the CRTC should not increase the burden the stations carry in the form of programming and financial conditions that the commission attaches to their broadcast licenses.

But Mr Bureau contended that the CAB's arguments simply don't square with the realities of the Southern Ontario market. "The stations had a (combined) profit of \$50-million last year, an increase of 11 per cent over the previous year, and above any other standard in the country. And their revenue growth has been steady, always above the national level."

The CRTC chairman also disputed Mr McCabe's statement that the broadcast climate is at present "highly uncertain," another reason the lobbyist advanced when he suggested the commission should not increase the licence burden.

That, he said, was an exaggeration. "There is always uncertainty."

Still, during the interview, Mr Bureau went out of his way to be conciliatory toward the CAB, which represents most private TV and radio broadcasters in Canada.

For instance, he suggested that some of the association's arguments might well be relevant in other markets, such as Winnipeg, Montreal and Halifax, where the TV economy has been less stable and where more new competing stations have begun broadcasting in recent years.

And he reiterated statements he made not long after Mr McCabe took over the helm at the association, to the effect that there had been a welcome change from the "excessively negative" attitude that had tended to characterize its behavior in the past.

"Maybe this time they didn't have enough time to study," Mr Bureau said of the presentation, which, a CAB official said Monday, wasn't completed until late Sunday evening. "I wouldn't question their good faith."

In response to a question, Mr Bureau also elaborated on several somewhat cryptic remarks he made in his opening speech to the hearing on Monday.

For instance, of his statement to the effect that the commission didn't plan "to negotiate" the terms of any licence renewal during the hearings, he said: "The applications we received seemed to show that people were keeping back some goodies in case we twisted their arms. But there will be no arm-twisting. We will listen to them, and if their proposals are satisfactory, we will renew their licenses for the full (five-year) term. If not, their renewals will be short term."

#### Telelobe Signs Deal for TAT-9 Fiber-Optic Cable

55200006 Toronto THE GLOBE AND MAIL in English 22 Sep 88 p B11

[Article by Bertrand Marotte]

[Text] After 2 1/2 days of number crunching and esoteric discussion, a 32-member consortium has emerged with a \$420-million (U.S.) deal to build a new transatlantic telecommunications cable.

The fibre-optic cable—known as TAT-9—will for the first time link Canada with four countries at once.

TAT-9, which will link Canada and the United States to Britain, France and Spain, is also the first fibre-optic cable with a landing point in Canada, Jean-Claude Delorme, president of international telecommunications carrier Telelobe Canada, said in an interview.

Telelobe, owned by Memotec Data Inc. of Montreal, a data communications equipment maker, is assuming about 8.5 per cent of the cost, while giant utility British Telecommunications PLC of Britain (through subsidiary British Telecom International) is in for about 20 per cent and American Telephone and Telegraph Co. of New York has about 28 per cent, Telelobe spokesman Robert Frank said.

The other two major participants are Direction Generale des Telecommunications de France with about 6 per cent and Compania Telefonica Nacional de Espana with about 4 per cent.

The new link, slated for service by 1991, will hold 15,120 individual voice circuits. Through the use of multiplexers, that number can be increased fivefold.

Telelobe will need about 1,400 of those circuits.

"We're confident we will be able to demonstrate (the new link's) cost efficiency and be able to reduce the price of overseas calls," Mr Delorme said.

Included in the \$420-million total cost is the \$50-million contract awarded last year to MPB Technologies Inc. of Montreal to develop advanced undersea switching units that will route calls between the five countries.

TAT-9 is the second transatlantic fibre-optic cable. TAT-8, expected to be in service by the end of the year, will provide about 7,500 voice circuits, mostly to the United States.

Telelobe needs its share of the TAT-9 line to continue meeting demand into the next century, Mr Delorme said.

**Bell Cellular Planning Over \$100 Million Expansion**

55200008 Toronto *THE GLOBE AND MAIL* in English 5 Oct 88 p B5

[Article by Bertrand Marotte]

[Text] Riding high on the mobile telephone wave, Bell Cellular Inc. of Toronto is planning to spend more than \$100-million next year to expand its service in Ontario and Quebec, but the young, money-losing company has yet to see a turn-around.

After three years in business, the division of BCE Mobile Communications Inc. has already met its 1990 target of 70,000 subscribers in Quebec and Ontario, Andre Halley, Bell Cellular vice-president for the Eastern region, said yesterday.

The 1988 figures represent a 70 per cent increase from last year and the company is predicting 600,000 subscribers industry-wide by 1991.

However, with about \$250-million in capital costs already accounted for and another \$100-million being invested next year, profit-making is still a stretch down the highway.

"We are just getting out of the startup phase," said John Gutzell, director of finance and accounting at BCE Mobile.

"There is a high level of capital expenditure and a high level of depreciation charges for what is after all a brand-new telephone company, with items like switches, base stations, microwave systems," he said.

Pretax losses carried forward at the end of last year amounted to \$64-million, most of which was accounted for by Bell Cellular, he said.

But Bell Cellular will declare operating profit for 1988, Mr Halley said.

Bell Cellular and its competitor Cantel Inc. of Toronto now share a market of about 180,000 subscribers, Mr Halley said. In Quebec, Bell Cellular has about 55 per cent and Cantel has about 45 per cent, while in Ontario the figures are reversed, he said.

"It's no longer an executive toy," he said—about 20 per cent of users are in the construction, real estate and service industries.

The new expansion involves creating 24 new markets that will reach 81 per cent of the population in Quebec and Ontario.

In Quebec, \$52.2-million will be spent—\$17.7-million to extend the network and \$34.5-million to increase its capacity through the addition of new cells, or transmission towers. Approximately \$70-million will be spent in Ontario, Mr Halley said.

Bell Cellular is participating in several programs that encourage users to report highway accidents, heavy traffic or crimes in progress on the street, he added.

To be more competitive, it is also introducing extra services, such as Info-Cell, which provides news, weather, sports and financial and stock market information.

With 10,000 to 12,000 new customers a month, competition with Cantel is fluid because the far-from-saturated market is constantly changing, he said.

Bell Cellular, unlike Cantel, is hooked up to the national network—CellNet Canada—which is made up of the cellular telephone units of several provincial telephone utilities.

Publicly traded BCE Mobile was formed last year. It is 83 per cent owned by BCE Inc. of Montreal, which also owns National Pagette Ltd. of Quebec City, a paging and answering service; Skytel Communications Corp., which supplies public telephones for aircraft; and National Mobile Radio Communications Inc. of Montreal, a land-based private and shared radio communications service in Ontario and Quebec.

Bell Cellular is forecasting revenue of about \$90-million for 1988, Mr Halley said.

**Zhao, Li, Other Leaders at Nuclear Conference**  
HK1412110088 Beijing XINHUA Hong Kong  
Service in Chinese 1130 GMT 13 Dec 88

[Report by Liu Huinian (0491 0932 1628): "Party and State Leaders Meet Experts Attending Conference on Development of Nuclear Technology"—XINHUA headline]

[Text] Beijing, 13 Dec (XINHUA)—This morning, party and state leaders Zhao Ziyang, Yang Shangkun, and Li Peng met in Beijing, the 150 or so experts attending the Conference on the Development of Nuclear Technology, and congratulated them on their achievements in the country's nuclear industry and technology.

Zhao Ziyang said: China has quite a good team of scientists and technicians and an even better one in advanced scientific and technological research. This is a very valuable treasure as well as an important condition for our participation in the new global contest in aggregate national strength in the next century. He said: In the next century, China should occupy the place in the world which it deserves. This requires our team of scientists and technicians and, in particular, the team involved in the development of advanced science and technology, to make further efforts to strive for even greater success.

Yang Shangkun thanked all of them for their new achievements in scientific research. He called on them to continue unremitting efforts to achieve in science and technology, particularly in the field of advanced science and technology, in order to make China worthy of its international status.

Li Peng said: The experts are working under harsh conditions. This is by no means easy. The State Council will give as much support to their work as possible.

Before the meeting, the central leaders also heard reports presented by the experts on nuclear technology.

**Satellite Agreements Signed With United States**  
OW2012092388 Beijing XINHUA in English  
0235 GMT 20 Dec 88

[Text] Washington, December 19 (XINHUA)—A agreement signed between the United States and China December 17 will "fully safeguard" U.S. national security interests and allow China to enter the international commercial satellite launching market, the U.S. State Department said here today.

Under the agreement, China will launch no more than 9 communications satellites for international customers over the next 6 years.

The agreement, which will take effect as soon as the U.S. issues a satellite export license for China, is the last of three agreements required by an administration decision taken September 9 on the issuance of export licenses for the Chinese launch of three U.S.-made communications satellites.

The State Department, however, said that although reaching agreement in the last of the three areas was clearly a major step, "we are not yet in a position to issue the export licenses for the three U.S.-made communications satellites. We must still review and formally approve the trade agreement."

Two other agreements on technology safeguards and on Chinese indemnification for potential U.S. Government liability were also signed December 17. The agreements were initialled in Beijing last October.

**Fifth Telecommunications Satellite, XINHUA Network Discussed**

**Foreign Observers Invited To View Launch**  
HK2112034: 38 Hong Kong SOUTH CHINA  
MORNING POST in English 21 Dec 88 p 10

[By David Chen]

[Text] China is to launch a tele-communications satellite, its fifth, from the Xichang launching pad in the southwest of the country tomorrow.

It will also be the first time that foreign observers will be invited to watch the launching, tentatively scheduled for the evening.

And if all goes well, the satellite will be circling above the equator in a geo-synchronous orbit somewhere over the South China Sea a few days later.

The launch closely follows yet another success launch, early this week, of a new model space exploration rocket from China's fourth space base—in Hainan Province.

A capsule zoomed into space at the tip of the new rocket, "Weaver Girl I"—named after a figure in Chinese legend. It floated in the atmosphere for 2 1/2 hours before returning to earth 64 kilometres from the launch site, the NEW CHINA NEWS AGENCY (NCNA) reported yesterday.

Another piece of good news came from the United States when representatives of the two governments initialled an agreement for China to launch an American-made satellite. The satellite, Asiasat, is expected to go into space some time late next year or in 1990.

The satellite—the former Weststar VI that failed to go into orbit from the Challenger space shuttle a few years ago—is a three-sided venture between Mr Li Ka-shing's Hutchison Whampoa, London-based Cable and Wireless and the China International Trust and Investment Corporation (CITIC).

Details of the launching of China's latest telecommunications satellite are still scanty. However, observers believe that it will be the most advanced of the five with more-refined electronic items. Weighing about 1 1/2 tonnes, the satellite will link up with the others in equatorial orbit.

In its reports on the Hainan launch, the NCNA said the experiment marked the first time Chinese scientists had gained direct access to mid-layer atmospheric data in a low-latitude area.

The new base was designed specifically for research into physical space phenomena at low latitudes. Rockets launched from Hainan, about 19 degrees north of the equator, would be used for experiments from a height of about 120 kilometres above the earth's surface.

The agreement initialled in Washington provided not only for the launching of Asiasat, but also other U.S.-made communications satellites.

Under the agreement initialled by the two governments, Beijing promised "to adhere to market economy practices regarding government support, pricing, insurance and the avoidance of government inducements", the State Department said in a statement.

The Chinese also agreed to launch no more than nine communications satellites for international customers over the next six years and to consult annually with Washington on the international satellite market, it said.

The two governments also signed two agreements initialled earlier to provide safeguards against the illegal transfer of American satellite technology to China and to protect the U.S. Government from liability in the event of a launch mishap.

**XINHUA Direct Satellite Transmission Network**  
OW2012140188 Beijing ZHONGGUO JIZHE  
in Chinese No 11, 15 Nov 88 p 44

[Article by unnamed staff reporter from the "March Toward Modernization" column: "An Undertaking Like a Tiger That Has Grown Wings—An Introduction to XINHUA's Direct Domestic Transmission Network Through Satellite"]

[Text] Standing on top of the roof, shoulder to shoulder with this bulky white satellite antenna, I stand a few inches taller. But I still have a faint feeling of being

shorter. The graceful parabolic antenna is capable of receiving information transmitted through a satellite way beyond in the sky. A few years ago, this could only be a dream.

Today the dream has become reality. As the first subscriber of XINHUA's direct domestic transmission network through satellite, LUOYANG RIBAO, the first city newspaper with its own circulation, has benefitted from the high technology of the 1980's. Commenting on China's only satellite transmission network, Sun Baochuan, director of XINHUA's Technical Bureau, said: "The new satellite transmission network has technologically improved the reception of XINHUA's transmissions by poorly equipped prefectural and city newspapers scattered over a wide area, and enhanced the timeliness of news and the reliability of communication."

The news transmission network is the lifeblood of a press agency as well as a major criterion for evaluating its strength. XINHUA has lagged far behind major Western press agencies in this area due to the limitations in our economic capabilities and technical means. Take, for example, the total length of transmission lines. XINHUA's domestic transmission network totals about 80,000 km, while that of AP was already 1.3 million km in 1984, a difference of about 17 times. Take, for another example, the means of communication. XINHUA transmitted to prefectural and city newspapers by shortwave facsimile. Due to the effect of ionospheric disturbance, the reception from shortwave facsimile transmission was poor and the speed slow. Transmission of a 30,000-Chinese-character news item would take more than 4 hours, thus reducing its journalistic timelessness. AP had already begun transmitting to some 3,000 subscribers through a direct satellite transmission network of small data stations.

How to reduce the gap? Extension of ground transmission lines was restricted by geographical and natural conditions and was not economical, in terms of money and time. The only solution was to set up a network directly transmitted through satellite using the technology of the 1980's.

The establishment of a satellite ground station is often viewed as a gigantic project requiring a large investment. As a matter of fact, the advent of small data station satellite communication in recent years has made it possible to have to invest only some 100,000 yuan for setting up a satellite antenna in one's backyard or on one's roof for direct communication through satellite.

In order to update the backward means of communication and improve service for press units, XINHUA launched a project in 1986 of setting up a domestic transmission network directly through satellite. The network consists mainly of the following components: a XINHUA transmission terminal, a satellite main transmitting station, an international satellite repeater positioned at a 63-degree angle over the Indian Ocean, and

small data stations of subscribers. After the editor completes a news item on the transmission terminal, it is transmitted to the leased satellite main transmitting station where the item is again transmitted to the satellite. Then, subscribers with special satellite antennas and reception equipment promptly receive the news item. At 40 Chinese characters per second, the speed of satellite transmission is about 20 times faster than that of facsimile transmission.

XINHUA has selected the U.S. Equatorial Satellite Corps' C-144A earth station for its subscribers. It is a one-way receive-only small data station, with a 1.8 by 1.2 meter rectangular parabolic antenna. The control unit has four output interfaces which can be connected to terminals for various types of service, that is, for Chinese microcomputers, text facsimile, graphic facsimile, and telex. LUOYANG RIBAO and other subscribers have recently installed a terminal consisting of an antenna, a control unit, and a high-speed Chinese and English computer printer. When conditions are ripe, such installations can be "expanded."

XINHUA has set up the direct satellite transmission network especially for prefectural, city, and other press units. Applying such advanced technologies as forward correction code and phase amplitude shift keying multiplexing, the satellite transmission network has a relatively strong disturbance resistance capability and a low error rate.

In fact, XINHUA has strived to improve not only the conditions but also the contents of news transmission for local press units. As the satellite transmission network is capable of transmitting different kinds of news items, XINHUA intends to transmit all kinds of items suitable for evening newspapers and prefectural and city press units, thus enabling them to select suitable items and publish newspapers with their own characteristics.

At a demonstration given by XINHUA's Technical Bureau in Beijing recently, dozens of experts showed keen interest while a number of units sent personnel to take part in technical training for the direct satellite transmission network. Some 20 units requested having ground stations installed this year. As director Sun Baochuan said, this "leap forward from the technology of the 1950's to that of the 1980's has greatly improved communication conditions and has been welcomed by all local newspapers."

In fact, with a satellite ground station, any subscriber, be it a press unit or enterprise, can promptly receive economic information gathered and transmitted by XINHUA through its gigantic network, and keep abreast with and take countermeasures in response to the latest changes in the international monetary, navigation, raw material, and other markets. In this way, a satellite ground station can yield huge economic benefit.

By the end of this century, XINHUA will set up a direct satellite transmission network consisting of small data satellite earth stations all over China and the world, thus building XINHUA's strength as a global news agency. When that time comes, all subscribers of the direct satellite transmission network will benefit even more.

#### Update on Telecommunications Issues

**Optical Fiber Cable To Link Three Major Cities**  
OW0712122288 Beijing XINHUA in English  
1030 GMT 7 Dec 88

[Text] The construction of a 2,200-kilometer optical fiber cable system linking the three major cities of Nanjing, Wuhan and Chongqing along the Yangtze River is now well under way.

The East-West communication cable system is the longest in Asia and the most advanced in China, according to the "PEOPLE'S POST AND TELECOMMUNICATIONS JOURNAL."

The project is aimed at improving telecommunications between the southwestern and eastern parts of the country, the paper said.

The system, with equipment imported from the United States, Italy and Federal Germany, will provide 11,520 telephone lines between the cities.

Two sections of the system—between Wuhan and Huangshi in Hubei Province and between Nanchang and Jiujiang in Jiangxi Province—have been completed and put into trial operation.

The Nanjing-Wuhan section of the system is expected to go into operation by the end of 1990, the paper said.

**Large Optical Data Crystal Developed**  
OW0812012388 Beijing XINHUA in English  
1518 GMT 7 Dec 88

[Text] Chinese scientists have developed a large crystal used in optical information processing and put it on the world market.

The barium titanate crystal, measuring 25 mm in diameter and 10 mm in height, was developed by researchers at the Physics Institute of the Chinese Academy of Sciences.

Experts said the crystal is able to restore distorted optical images and amplify weak optical signals; it can be used in image recognition, information processing and communications technology.

It is reported that before the Chinese institute developed its crystal the only supplier of the crystal on the world market was the Sander Company of the United States, which perfected the technique only in the 1970s.

Within less than two years the Chinese researchers solved the key problems in developing the crystal and worked out production processes.

Orders have come from Europe, the United States and Japan.

#### **Central Color TV Center Passes State Tests**

OW0712132488 Beijing XINHUA in English  
1244 GMT 7 Dec 88

[Text] Beijing's Central Color Television Center, the largest single-station TV center in Asia, was checked and accepted by the state here today.

The center, situated in the western part of Beijing, has two buildings with a combined floor space of 100,000 square metres. Its main building is 113-meter high. The total investment in the project is 237 million yuan.

Owned by the China Central Television Station, the center is designed to transmit color TV programs through five channels with 240 broadcasting hours per week.

The center, completed last June after five years of construction, started trial-transmission of color programs on New Year's Day 1986 and made live broadcasts of Spring Festival eve parties in 1987 and 1988. The Spring Festival is China's longest traditional festival.

#### **Satellite Survey Laser System Appraised**

HK1312110988 Beijing CEI Database in English  
13 Dec 88

[Text] Beijing (CEI)—A new mode lock signal frequency laser system for satellite distance survey with high precision has passed appraisal in Beijing.

This new laser system produced by the No. 11 Research Institute under the Ministry of Machine Building and Electronics Industry is composed of 22 precision optical parts, including active and passive double mode lock laser poulsen-arc converter, single-pulse selector, three-level laser amplifier and signal frequency meters. It is completed by high-precision lock circuit, multi laser source and automatic controlled thermal transducer.

Experts said that the technical indexes of the system have reached world advanced level but the price is only one-seventh of the same American products.

The system can do distance survey of a satellite 9,000 kilometers away from earth with error less than a millimeter. So far, three sets of the system have been produced. One of them, installed at the satellite station in Changchun in northeast China, has been in operation for 23 months with stable performance. Its measurement precision ranges from five to eight millimeters.

Experts said that the successful production of the new system will not only update the survey of satellite distance in China, but also of is great significance in geodetic survey, crustal movement, and earthquake forecast. It is also applicable in the research of nonlinear optics, biochemistry and laser spectra.

#### **Rocket Launch Pad for Communications Satellites Developed**

OW0812134288 Beijing XINHUA in English  
1204 GMT 8 Dec 88

[Text] Haikou, December 8 (XINHUA)—A new rocket launch pad designed specifically for space research has recently been established on Hainan Island.

The base, which will soon start launching rockets, has taken two years to build, said Sun Chuanli, director of the space center under the Chinese Academy of Sciences.

The first phase of the project includes a launching pad, an underground control center, radio and remote sensing systems.

Sun said that rockets launched from the base are capable of undertaking space research experiments from a height of 120 kilometers to gain data about medium and upper atmosphere over the area.

"Sounding rockets will be launched to probe the parameters of outer space and act in conjunction with satellites to gather material for research purposes," Sun said, adding that the base is also of significance for the retrieval of spacecraft, communications and navigation.

China has built several satellite launching bases in Jiuquan, Xichang and Taiyuan, but they are all located in medium latitude areas, Sun explained. The Hainan base is designed specifically to carry out research into space physical phenomena at low latitudes.

Experts believe that as the base is one of the few in the world, it will play an important role in international cooperation and exchange of science and technology.

"The base will be open to foreign scientists and they will be welcome to join us in our research," Sun said.

The launch pad is also open for hire by foreign institutions, he said.

The second phase of the project will be undertaken during the Eighth Five-Year Plan (1991-1995), Sun said. After that, the base is expected to be able to send sounding rockets to a height of 300 kilometers and have a ground station for satellite retrieval.

**Dialed Telephone Service With India Slated**

*OW1912235188 Beijing XINHUA in English*

*1635 GMT 19 Dec 88*

[Text] New Delhi, December 19 (XINHUA)—International subscriber dialed (ISD) telephone service between India and China will be formally introduced from December 21, according to a press release published here today.

International telecommunications between China and India were started more than 40 years ago with the establishment of a direct public telegraph circuit between India and Shanghai by high frequency radio.

Telephone service was started through high frequency medium in March 1955 and telex service from 1978.

## HONG KONG

**Revamped ATV Seen Likely To Get New License**  
55400030 Hong Kong SOUTH CHINA MORNING  
POST in English 15 Nov 88 p 3 Business

[Article by Martin Winn]

[Text] Sir Run Run Shaw's HK-TVB is expected to be awarded a new 12-year broadcasting licence on December 1 after its shareholders yesterday voted for a restructuring of the company.

Under the reorganisation, HK-TVB's broadcasting operations are to be spun off into a separate listed company, Television Broadcasts (TVB), leaving HK-TVB with the group's publishing, retailing and other non-franchise interests.

The move is to comply with the Government's new Television Ordinance, which comes into effect next week and stipulates that broadcasting companies cannot carry out non-broadcasting activities. The Broadcasting Authority is expected to confirm TVB's new licence shortly.

Shareholders in HK-TVB will be allotted one new TVB share for every existing share they now own. Trading in TVB shares will start on November 23.

After-tax profits of TVB, on a pro-forma basis, are forecast at not less than \$410 million for the year to December 31, while the new HK-TVB's earnings are seen at \$40 million or above.

TVB shareholders will get a final dividend for the current year of at least 44 cents, and HK-TVB shareholders a minimum of six cents.

Approval of the restructuring will also allow TVB to introduce, in consultation with the Broadcasting Authority, a mechanism to determine the level of foreign shareholdings in the company.

The new broadcasting rules limit total foreign ownership of a TV company to 49 per cent and individual foreign stakes to 10 per cent.

This process is expected to be completed in May, and talks with the Government may then start on the possible forced sale of foreign stakes.

The most likely victim of such a review is Bond Corp International, which has about a 30 per cent stake in HK-TVB.

Meanwhile, TVB plans to appoint BCIL chief Alan Bond as a director of the company after its new licence is granted.

**TVB Share Blunder Causes Trouble for Brokers**  
55400032 Hong Kong  
HONGKONGSTANDARD in English 16 Nov 88 p 1

[Article by Stephen Rogers]

[Text] In an amazing example of investor ignorance and broker incompetence, HK-TVB shares yesterday briefly traded at their old pre-reorganisation value before the company asked the stock exchange to suspend the shares.

About 298,000 shares were traded before the share was suspended. The event will undoubtedly result in legal action as investors who bought the shares at prices far in excess of their value try and recover their money.

HK-TVB was recently restructured to comply with the new broadcasting regulations.

Under the restructuring, the broadcasting interests of the company were listed separately under the heading of TVB while the company's other operations remained under the HK-TVB listing. Thus the restructuring effectively created two new companies.

However, the new TVB company accounts for about 85 per cent of the profits of the old company. Accordingly, when the two shares are listed, TVB's share price should roughly equate with this percentage of the old combined share price with HK-TVB making up the remaining 15 per cent.

The company itself is believed to expect TVB to trade at about \$13 and HK-TVB at \$1.50. The old HK-TVB share was recently suspended to complete the restructuring and the new HK-TVB share was listed yesterday with the new TVB share expected to be listed on November 23.

However, some investors and brokers either mistakenly believed that the new HK-TVB share was still the old HK-TVB share or confused it with the new TVB share.

The share started trading around the old HK-TVB share price of \$14. The brokers responsible were contacted and the confusion cleared up. However, trade continued later with the share price declining to about \$9.40 and it was obvious that the confusion was not confined to only two brokerage houses.

The stock exchange even made two announcements on the trading floor and flashed a message on its teletext page warning brokers about the confusion.

However, trading continued and in desperation the exchange contacted HK-TVB which requested that the share be immediately suspended. At this stage, shares worth almost \$4 million had been changing hands at prices ranging from \$14 to \$9.40.

**Bond Corp To Sell Stakes in TVB, HK-TVB**  
55400026 Hong Kong HONGKONG STANDARD in  
English 11 Nov 88 p 1

[Article by Stephen Rogers: "BCIL To Sell Stakes in TVB, HK-TVB"]

[Text] Bond Corp International, HK-TVB and TVB were all suspended yesterday with BCIL involved in negotiations with a third party for the sale of its 30.4 per cent stake in the two companies.

BCIL was due to make an announcement yesterday but this was postponed at the last minute.

The management also was not available for comment, but a statement is expected this morning.

At this stage, the betting is that the stake will be sold at \$17 a share to a consortium consisting of Hysan Development, EIE Development and Malaysian businessman Robert Kouk.

The Kouk group bought BCIL's property portfolio earlier in the year for \$1.37 billion.

Interestingly, the sale should fit in with the new broadcasting regulations. EIE and Kouk—as foreign shareholders—will end up with the maximum 10 per cent each while Hysan presumably will take up the rest.

A third share will cost Hysan about \$720 million compared to the company's market capitalisation of \$5.9 billion. This puts the transaction over the 10 per cent limit and suggests that the counter should also have been suspended.

Someone seems to have made a mess of things yesterday as BCIL's share was suspended before HK-TVB and TVB at 10 minutes past midday. This created hectic trading in the two shares which eventually were suspended at 2:30 pm.

With the privatisation of BCIL already under attack from minorities, it appears the timing of the sale is against the better interests of BCIL.

The company ideally would have liked to have got the privatisation out of the way before announcing any asset sales. But now that a sale is on, the chances of the privatisation proposals being accepted by minorities appear slim.

The sale of HK-TVB and TVB will bring in about \$2.2 billion to BCIL's coffers.

But it will also increase the company's NAV by almost 30 cents to \$3.34 per share, which would raise the discount to NAV of the offer price from 27 to 34 per cents. And this obviously would not go down well with minorities.

One solution may be to increase the offer price to, say, \$2.40—which will give minorities most of the benefit of the sale while retaining some of the extra value within the company. It may be that Peter Lucas would stifle any minority revolt by announcing the sale and a revised offer simultaneously.

However, the sale must once again cast doubts on BCIL's assertion that it intends to remain in Hongkong after it is removed from the public domain.

Only a few weeks ago, the company had been claiming that its stake in HK-TVB and TVB was a long-term investment.

**Delay in TVB Share Sale Gives Edge to Bond Corp**

55400025 Hong Kong HONGKONG STANDARD in  
English 12 Nov 88 p 1 Business

[Article by Stephen Rogers: "Delay in TVB Share Sale Gives Bond Corp the Advantage"]

[Text] A decision on Bond Corp International's excess 10.5 million HK-TVB shares may not be taken for up to 12 months, according to BCIL managing director Peter Lucas.

"It is likely that the authorities will first determine the aggregate foreign ownership to see if it exceeds the 49 per cent limit under the new broadcasting regulation," Mr Lucas said.

"If it is under, we shall certainly intensify our efforts to retain our existing stake, but all this is likely to take several months," he said.

The 10.5 million shares were acquired after the cut-off date on foreign ownership in November 1987.

Any delay on the TVB issue obviously puts BCIL in a stronger position in the event of a sale of this investment, as a 30.4 per cent share is more attractive than a 28 per cent holding to a buyer interested in controlling the two new companies.

Mr Lucas has repeatedly denied that BCIL has been approached by potential buyers or that it would sell its TVB stake.

But the managing director devoted a surprising amount of time to the upcoming privatisation, which was not on the agenda at yesterday's extraordinary meeting.

Producing a chart showing the movement of share and warrant prices this year, Mr Lucas said the offer price was 41 per cent greater than the highest share price this year. Any investor who had bought the share at the listing and followed his rights, exercised his warrants and accepted the cash offer would be receiving a return of 45 per cent on his funds, he said.

Mr Lucas suggested that this return was better than what shareholders in some other public companies could hope to get in the same period.

However, comparing the share with those of other public companies is not valid since by definition, the privatisation means that shareholders will get no further return from the company.

As well, comparing the rate of return on the privatisation of BCIL's share to other existing listed shares does not take into account the income a shareholder would receive on the privatisation of these shares.

Without a net asset value figure, it is hard to put the offer price in perspective. At June, it stood at \$2.82 per share and—given a 20 per cent rise in the following five months—it must stand around \$3.40 today.

It will be interesting to see how minorities react when an updated NAV figure is published later this month. A 75 per cent vote of minorities present at the EGM and proxies will be needed for the privatisation proposed to go through.

Meanwhile, BCIL is negotiating with a brewery in China on the possibility of taking a controlling stake in the company for about US\$40 million.

#### Exchange Issues HK-TVB Warning on Tuesday Sales

55400034a Hong Kong *SOUTH CHINA MORNING POST* in English 17 Nov 88 p 3 Business

[Article by Martin Winn: "Exchange Issues HK-TVB Warning"]

[Text] The Hongkong stock exchange yesterday took the unusual step of warning brokers who traded in HK-TVB shares on Tuesday that they should report any unsettled bargains by noon today.

The move came amid fears that many investors who bought the stock will renege on the deals.

A circular sent to all exchange members reiterated that transactions involving 300,000 HK-TVB shares on Tuesday morning should be honoured, and that any failure to deliver or accept the shares should be notified to market supervisors.

An exchange spokesman said it was too early to decide what action might be taken to force settlement of any bargains.

"We will have to look into the reasons for any unsettled deals before making a decision on that," she said.

Trading in HK-TVB shares was suspended after 90 minutes on Tuesday, when repeated announcements by the exchange failed to stop several small brokers dealing in the stock at prices that did not reflect HK-TVB's recent reorganisation.

Deals were halted with the shares at \$9.30—about three times their theoretical value—and are to resume again this morning.

Investors who had bought the shares, which only returned from an earlier two-day suspension on Tuesday morning, might refuse to accept the scrip because of the heavy losses they are shouldering, leaving their brokers to meet the bill.

Several are also expected to take legal action against their brokers for failing to realise that HK-TVB no longer included its major broadcasting interests and consequently buying stock at inflated prices.

HK-TVB's broadcasting business has been spun off into a separately listed company.

**BCIL Sells 30 Percent Holding in HK-TVB, TVB**  
55400038 Hong Kong *HONGKONG STANDARD* in English 26 Nov 88 p 1 Business

[Article by Stephen Rogers]

[Text] Bond Corp International confirmed yesterday that it has sold its 30.4 per cent holding in HK-TVB and TVB to the Kuok family for \$2.014 billion.

However, BCIL minorities will be disappointed to learn that the company has no intention of increasing the privatisation offer price.

The HK-TVB stake was sold at \$1.50 per share while the TVB holding went at \$14.30 compared with the suspension prices of \$1.34 and \$14.30, respectively.

However, BCIL managing director Peter Lucas said the premium paid on one share and not on another was unintentional and merely the result of the movement in share prices prior to the suspension.

The sale values the shares at an excess of \$218 million over their book value, pushing the NAV per share up by 18 cents to \$3.22. This increases the discount to NAV of the offer price to 32 per cent, which should not amuse minorities.

Mr Lucas stated repeatedly that the offer price was based on the share price and not on the NAV. Accordingly, there will be no revision in the offer price.

To minorities, this will appear a bit mean. Mr Lucas agreed that the sale could complicate the privatisation when he said, "Obviously, we would have preferred to have got the privatisation issue out of the way before any asset sales".

The sale appears to have been rush job. Mr Lucas was contacted in Perth on Wednesday and the sale was concluded the next day.

However, now that it is concluded and with the funds flowing into BCIL, the chances of privatisation offer being accepted must also be considerably reduced.

The managing director confirmed that he had received the circular from a minority shareholder urging other shareholders to reject the offer terms.

However, the company has not yet decided if it will agree to the shareholder's request to send the circular to other shareholders.

In terms of an investment, the sale gives the company a gross return of about 13 per cent. Ironically, the proceeds from the sale may justify the minorities' rejection of the privatisation.

One of the reasons for accepting the offer is that BCIL will become heavily geared to meet its capital commitments, and this will have a depressing effect on the share price if it remain a public company.

However, part of the funds realized from the sale will be used to finance its \$1.3 billion investment in CTC. This will increase BCIL's stake to 45 per cent and keep its gearing at more acceptable levels.

Minorities will have to gamble on taking the \$2.20 now and running—or holding onto a share which public and investor sentiment appears to be against.

#### **Kuok Stakes Claim To Buy TVB on Hong Kong Residency**

55400039 Hong Kong SOUTH CHINA MORNING POST in English 28 Nov 88 p 1

[Article by Tim Metcalfe]

[Text] Robert Kuok Hock Nien yesterday staked his claim as a Hongkong permanent resident to be entitled to buy Australian entrepreneur Alan Bond's 30 per cent stake of TVB.

"I am not a Singaporean. I have been resident in Hongkong for approximately 10 years and I hold a Hongkong identity card and have paid Hongkong taxes throughout that period," Mr Kuok said in a statement to the South China Morning Post.

The Broadcasting Authority is awaiting confirmation that his \$2.01 billion purchase does not breach rules restricting foreign ownership of companies holding the territory's television licenses.

Secretary for Administrative Services and Information Peter Tsao has declined to comment on the acceptability of TVB's prospective new shareholders.

New legislation introduced last week limits foreign ownership of any Hongkong television station to 49 per cent. Individual overseas investors are restricted to 10 per cent each.

The Broadcasting Authority is anxious to establish how many of the TVB shares will be held by Hongkong resident companies and how many by overseas interests.

Mr Kuok, 65, and reputedly one of Asia's 20 wealthiest men, said that since he and his family had lived here for about 10 years they regard Hongkong as their permanent home.

Trading in shares of the Kuok group's locally-listed arm, Keck Seng Investment (HK) has been suspended pending approval of the buy-out. So has trading in Bond Corporation International, the Hongkong arm of Mr Bond's business empire.

Mr Kuok's statement said: "I would like to take this opportunity to set the record straight.

"I have been advised that I and my family interests are qualified under the Television Ordinance to purchase and own shares in Television Broadcasts Limited—and that this would not be treated as foreign ownership.

"I am the holder of a Malaysian passport, but the Television Ordinance does not treat this as a relevant consideration in determining whether ownership of shares (in local television) is local or foreign."

Mr Kuok was born in Johore state, Malaysia, and launched his worldwide business empire through sugar and rice dealing.

His group's portfolio now includes shipping, property, insurance, banking, trade financing, hotels and sugar refining.

But although many of his subsidiaries are technically Hongkong-based, there is a question mark as to where their ultimate ownership lies.

If a holding company outside Hongkong controls more than 15 per cent of Keck Seng Investment (HK), the new Television Ordinance requirements may not be met.

Broadcasting Authority chairman Allen Lee Peng-fei said: "I think the buyer and its lawyers will be fully aware of the licensing conditions and they will not throw such a large amount of money blindly at a deal."

Earlier this year the Kuok group paid \$1.37 billion for Mr Bond's Hongkong residential property portfolio.

The group also owns the Shangri-La Hotel. Mr Kuok is an old friend of TVB chairman Sir Run Run Shaw, who is on the hotel's board of directors.

Sir Run Run is expected to remain at the helm of TVB when the Kuok group become the biggest single shareholder. The acquisition awaits formal approval by Bond Corporation shareholders on December 14.

**China Seen Buying Into HCV Via CITIC**  
*55400024 Hong Kong HONGKONG STANDARD in English 25 Nov 88 p 1 Business*

[Article by Winnie Fu: "China Tipped To Have Hutchison Cable TV Share"]

[Text] China is to buy into Hutchison Cable Vision through the state-owned China International Trust and Investment Corporation (CITIC).

Although officials from both companies refused to comment on the impending partnership, informed sources said an announcement was expected next month.

CITIC's proposed stake in HCV is still unknown, but sources said it was unlikely to exceed 10 percent.

It will be the second link to the Hutchison Group for CITIC. Earlier this year, CITIC joined Hutchison Whampoa Corporation and Britain's Cable and Wireless in Asia's first domestic satellite scheduled for launch in 1990.

By getting involved in HCV, CITIC's portfolio in the profitable telecommunications service would be significantly boosted if HCV were granted the franchise to operate Hongkong's second telecommunications network and cable television.

And this will also allow CITIC access to the latest telecommunications technology, paving the way for future transfer of technological knowhow to China.

It is understood HCV has successfully invited international telecommunications leaders to join the venture, including American giant AT&T; prominent American cable TV company Viacom; and also Japan's powerful Kokusai Denshin Denwa (KDD) group.

Like other minority shareholders of HCV such as Golden Harvest, Sir Run Run Shaw and the Hongkong Bank, these international firms are expected to each hold a small percentage of HCV's stake.

It is expected that after the restructuring to accommodate the new partners, HCV will still remain in the hands of its biggest shareholder—British Telecom.

A CITIC spokesman yesterday neither confirmed nor denied it had joined the HCV consortium. "I have nothing to say," he said.

But managing director Mr Larry Yung had said earlier that CITIC planned to invest heavily in telecommunications.

Sources close to HCV indicated the new structure for the group had been finalised.

But the HCV managing director Mr Craig Ehrlich refused to comment. Earlier he had said a public announcement would be made soon.

HCV, backed by business tycoon Li Ka-shing, has been widely tipped to win the right to run Hongkong's second network and cable television.

Telecommunications experts said while CITIC's move might be symbolic in terms of the small number of shares it holds, the acquisition had significant long-term implications on the Sino-Hongkong relationship.

**HCV Cool to Public-Access Channel in Cable Net**  
*55400027 Hong Kong SUNDAY STANDARD in English 13 Nov 88 p 2*

[Article by Winnie Fu: "Cable TV Bidder Tunes Out Public"]

[Text] Hutchison Cable Vision (HCV), tipped as the leading contender for the territory's cable network, has poured cold water on the prospect of a public-access cable channel.

The idea was first floated last week at a Government-organised telecommunication seminar.

The seminar was designed to encourage public involvement in community programmes.

HCV managing director Mr Craig Ehrlich said public access programmes had been available as a service in the United States for over 15 years—but only a few had been successful.

"It's conceptually very good, but many of the programmes were poorly executed," he said.

Mr Ehrlich would not speculate on the attitudes of Hongkong people towards such a channel, but he made it clear that such a plan was outside Hutchison's proposal in its bid for the cable television licence.

"If the Government thinks it is a good thing, we will be supportive of its idea. But HCV is not to be involved in it," he said.

The initial projection is that the Government will use one out of every 10 channels for its own programming.

Administrators of prominent telecommunication companies interested in Hongkong's cable network who attended the seminar discussed the possibility of a public access channel.

Some participants said it would provide an excellent training ground for students of broadcasting.

But Mr Ehrlich maintained that such additional training was not necessary, since Hutchison Cable Vision would be organising its own training programmes and would employ many trainees from colleges.

"We will be badly in need of qualified people for our entertainment and information programmes," he said.

Mr Ehrlich said HCV's most difficult objective was to fill the thousands of hours of broadcast time. He said this would be an on-going process.

When asked to comment on the idea of public access, Principal Assistant Secretary for Administrative Services and Information, Mr Stephen Selby, said he was personally supportive of the idea, but said there were two big problems.

"The first is co-ordination and the second is funding," he said.

Mr Selby said he personally did not think the Government would want to run a centre to operate the channel, but he said the Government should do its best to encourage public funding and take the lead in formulating the framework.

Meanwhile, HCV is finalising the 200-page proposal to be forwarded to the Government in 60 days.

Mr Ehrlich, who just returned from a working trip to Canada, is an ambitious cable administrator experienced with running cable systems in the United States.

He has been preparing for the tendering since he took up his present job last year.

There has been a lot of speculation about the company's future shareholders, but a final decision has already been reached. The new composition will be announced by December at the latest.

HCV is optimistic about its cable project and is now looking for a suitable site capable of holding its studios, offices and administrative complex.

It is seeking a convenient 250,000 square-foot site.

#### **Dissolution of Consortium Gives Edge to HTV for Cable**

55400037 Hong Kong HONGKONG STANDARD in English 24 Nov 88 p 10 Business

[Article by Fergus O'Rourke]

[Text] Last month's dissolution of the Cable Television Hongkong consortium was interpreted by most observers a victory for the rival Hutchison Cable Vision (HCV) consortium in its pursuit of the licenses to build and operate the territory's first cable TV and telecommunication network.

Any lingering doubts were transformed into certainties when a few days later the Hutchison consortium was expanded to include Swire Pacific—an important refugee from the Hongkong Telecom camp—together with the Hongkong Bank and the China International Trust and Investment Corporation—Beijing's seal of approval on the deal.

"It's all cake for the boys now," said one well-known business commentator. "Li Ka Shing has built up such a solid team that nobody else has a chance. They got every angle covered and the China play seals it."

This would seem to make a mockery of the Hongkong government's hopes of a vigorous international response to its tender document. With such a strong home team on the field and ready to play, who else is going to show up for the game.

To be fair, the government, like Hongkong Telecom, has been out maneuvered.

"The government has done what it could," another financial analyst commented, "but it didn't foresee Hutchison holding quite so many aces."

Be that as it may, it is perhaps easy to forget that the Hutchison Group is only a big fish in a small bowl. Out beyond Victoria harbour bigger fish lurk and may yet snatch away Hutchison's catch before it has time to get its teeth into it.

So what would be needed to beat the Hutchison team? The requisite attributes are easier to identify than those who have them.

—Substantial financial resources: According to a recent report on the telecommunications industry here, published by Schroder Securities (Hongkong) Ltd, estimates of capital investment in the network vary between \$2,700 million and \$3,500 million, with some 60 per cent of this being spent in the first three years of

construction. HCV reportedly plans to spend \$6 billion over ten years on programme production and Schroder's would not be surprised if they end up promising more.

—The entrepreneurial spirit: The venture is something of a gamble. Nobody really knows if Hongkong people will bother to sign up for cable. After all, they have been quite happy watching TVB for the past 21 years, why should they change? In any case, the communists will be taking over place just as the project is due to break even and everything could go to hell. On the other hand, the potential rewards are big in the long run. The most optimistic projections of the Schroder report see earnings of \$660 million on revenues of almost \$2 billion by 1990. The potential of telecom operations has not been projected. There could be some rich pickings but the network operator will be up against a very strong competitor.

—Telecommunication expertise: Building and operating a telecommunication network takes a lot of know how. People can always be hired to do it but it would be a big advantage to have a team member (like British Telecom in HCV) who has done it all before.

—Programming capability: The winning consortium simply has to include a partner or partners who know about entertaining Hongkong audiences.

—Pin striped: The government likes dealing with establishment companies—it would not really countenance shady fly by night boys.

—The China connection: Friends across the border are a big help. Better still if you can get them to participate.

Given all the above, it is an interesting exercise to compare a few names against the list. Among the Hongkong business establishment, there are not many possibilities left.

—Jardine Strategic Holding: It has probably got the money but has it got the inclination? The Jardine camp has not been displaying much entrepreneurial flair of late and the sudden change of Tai Pan can only mean a period of consolidation before embarking on any new ventures. Still the Princely Hong would make a very respectable partner for any overseas principal.

—Stanley Ho/Shum Tak: The tables of Macau provide Dr Ho with pockets deeper than almost any in the region, bar the Sultan of Brunei. For a man who has sunk millions into developing horse racing in Iran, cable TV would seem to be good long term bet. However Mr Ho professes never to gamble and in any case, his interests in TDM and ATV exclude him from holding more than 15 percent of the broadcasting licenses. To cap it all, Dr Ho told THE HONGKONG STANDARD recently that he was definitely not interested in a piece of second network action.

—YK Pao/World International: Although a man of great substance and integrity, Sir YK is also pretty conservative in his business dealing, preferring investments in going concerns like boats, buildings and banks (and conventional broadcasters). If he takes up a major stake in TVB he would be more of less exclude himself as a suitable partner for cable TV.

—Bill Wylie/Asia Securities: Hongkong's greatest company doctor doesn't have the financial resources himself but really knows how to put a deal together, and with whom. He would be a very helpful ally to a big foreign investor that doesn't know its way around town.

—Hongkong Telecom: Obviously isn't the game anymore but must have a pretty interesting cable TV business plan sitting on the shelf. Having reconciled itself to the fact that there will be a second network, it might be willing to part with its knowledge if made the right offer or just to spite Hutchison. A ready made business plan would certainly be a big help to someone entering the game at this late stage.

The field is far more open when it comes to overseas entities that might be interested. A list of hungry foreigners might well include:

—Rupert Murdoch/SCMP: Cable TV and telecom is just Mr Murdoch's cup of tea for the 1990s. The Post's cash flow is very strong but unfortunately it could no longer be considered as a Hongkong company under the terms of the Television Ordinance, therefore it could only own 49 percent of the broadcaster. Would Mr Murdoch settle for anything less than complete control?

—Alan Bond/Bond International Corp: Another avaricious Australian. Bondie has already demonstrated his interest in telecommunication with his participation in the Chilean PTT. He has to get rid of his TVB stake soon, what could be a more perfect opportunity for him than to invest in a chunk of cable TV? The trouble is, one has the feeling that he doesn't much care for the Hongkong business environment these days and in any case, he's probably in search of a cash cow rather than a cash drain.

—American Telephone & Telegraph: A definite possibility if it can find some local friends. Judge Harold H. Greene has got Ma Bell all tied up at home but the Orient is beyond his jurisdiction. AT&T has the expertise and heaps of money but doesn't know much about producing Cantonese costume dramas.

—NYNEX: Despite being described as a Baby Bell, this particular baby is still one of the biggest telecom companies in the world. It has been sniffing around in Hongkong for three years.

- Bell South: Another of Judge Greene's regional brood and with its heart equally set on overseas expansion.
  - Nippon Telegraph and Telephone: Lotsa money—the most valuable company in the world in terms of market capitalization and has the biggest pre-tax profits of any company in Japan. In the face of increased competition in its former home monopoly NT&T is intent on overseas expansion. This lot would really scare the pants off Hongkong Telecom.
  - Kokusai Denshin Denwa: Japan's overseas telecom company is about to loose its monopoly with the entry of two consortia, one of which is led by Cable & Wireless. Would it, like British Telecom has done in the Hutch consortium, be tempted to stick its fingers into its new rival's own home pie?
  - Reuters: Wouldn't be a leader but might be a participant if it felt the second network would give it an opportunity to develop its electronic information business here. It is certainly one avenue that Hutch is keen to develop.
  - Telestar: ditto Reuters.
- Where the overseas contingent have their achilles heel, of course, is in the area of TV programming. They desperately need the help of the territory's film industry if they are to stand a chance of pulling the project off. Contacts in the world of show business say there is plenty of potential. Most are small so an alliance would have to be forged but anything is possible if the price is right.
- Golden Harvest: Raymond Chow has already been in one cable TV consortia but now says he will work with anyone who runs the cable network. Presumably he could be tempted to have another run at it. Unlike Shaw Brothers, Golden Harvest is still very active in movie production.
  - Edko Group: Another ex-CTHK partner. Although not a film producer, the company is strong in distribution and has shown considerable flair. Edko is the name behind Columbia Classics, The Broadway and it has just opened a joint venture cinema in Schenzhen.
  - D&B: Another film distribution outfit which now operates all the Shaw Brothers cinemas. D&B also dabbles in production.
  - Cinema City: Is very active in movie production and has made a whole string of hits in recent years. Adapting the Cinema City formula to cable TV could be a winner.
  - Dickson Poon: Although he has ceased to be directly involved in movie production.

And what of the China connection? There is one mainland entity that would be the perfect match for anyone wishing to run a telecommunication network here after 1997, namely the Guangdong Post and Telecommunications Bureau. Hooking up to GPTB would require considerable political guile. After all CITIC is a member of the opposition and presumably the bureau does what Beijing's bidding. The other problem is that GPTB has very close relations with Hongkong Telecom. The GPTB would need a new sugar-daddy if it got involved with the second network here.

All things considered, is it worth the effort for anyone else to mount a challenge to HCV? Schroder Securities has certainly come up with some very sound reason why perhaps even Hutchison shouldn't bother with the project the way the government is presently structuring the terms.

Schroder report says that: "The earliest that the full investment could be recouped, ignoring any financing costs, would be the turn of the century. The cumulative cash-flow reaches, on some assumptions, nearly \$4 billion. However, after 15 years of operation, cable television would enjoy strong operating cash-flows. Estimates vary between just under \$500 million to \$1.5 billion a year.

"The long-term prospects for cable are good. However, the short term prospects will mean higher losses and cash flows than, we believe, are generally anticipated. If Hutchison Telecommunications becomes a cable television operator, we would expect a period of disappointment which will test the nerves of the Hutchison Whampoa management and inevitably reflect on the wide group's share price," Schroder's concludes.

#### **HK Telecom Helps Boost Cable & Wireless Profits**

55400034b Hong Kong SOUTH CHINA MORNING POST 17 Nov 88 pp 1, 3 Business

[Article by Martin Winn: "HK Telecom Helps Boost C&W Profit"]

[Text] Steady growth by Hongkong Telecom helped push the interim profit of its British parent company, Cable and Wireless, up 20 per cent to a pre-tax level of £198 million (about HK\$2.7 billion).

Cable and Wireless, which will own about 76 per cent of Hongkong Telecom after placing a stake of up to 3.5 per cent next month, managed only a nine per cent increase in total turnover to £509 million in the six months to September 30. This was reflected in a four-point improvement in profit margins to 37 per cent.

The results were largely in line with expectations and Cable and Wireless shares, which are thinly traded in Hongkong, fell 6p to close at 365p yesterday.

Market observers were encouraged by a first-time trading profit of £4 million from the group's business telecommunications subsidiary Mercury, which suffered a loss of £11 million in the same period last year.

Asia and the Pacific again accounted for the bulk of the group's sales and earnings. Turnover in the region climbed £20 million to £293 million, 57 per cent of total sales, and trading profits rose from £127 million to £141 million.

About 70 per cent of group trading profits were contributed by the Hongkong operation, a slightly smaller share than the previous year. Hongkong Telecom earlier this month posted an increase in pre-tax profits from \$1.64 billion to \$1.94 billion for the half year to September.

Cable and Wireless managing director Brian Pemberton said Hongkong's share of the company's profit would decline in future as the flow of earnings from Mercury increased.

"Mercury has broken through into profits and its earnings will grow substantially in the coming years," he said.

But he denied the company's decision to offload part of its Hongkong Telecom stake represented a move away from the territory. "Hongkong's importance will remain," he said.

Cable and Wireless yesterday reiterated in a statement accompanying the results its promise not to sell further Hongkong Telecom shares before March 1990, including shares it could receive as scrip dividends this year.

Adverse exchange rate movements, principally an eight per cent rise in the pound against the US and Hongkong dollars over the period, knocked £40 million off total sales and depressed gross earnings by £9 million.

"Much of the group's trading revenues are in dollar-related currencies," Mr Pemberton said.

Attributable profit rose 28 per cent to £139 million, helped by a £4 million extraordinary gain on the sale in June of a 0.1 per cent stake worth £5 million in Hongkong Telecom to Guangdong Posts and Telecommunications Bureau.

Group earnings were also boosted by an exceptional profit of £13 million from the disposal of its three per cent stake in UK cellular radio firm Racal Electronics.

Earnings per share rose 23 per cent to 13.2p and the interim dividend was lifted from 2.30p to 2.82p.

Heavy capital spending, principally on the company's international optical fibre telecommunications network, pushed up total borrowings to £395 million from £286

million at the end of September 1987, resulting in a slight increase in net gearing to nine per cent of shareholders' funds from eight per cent—still very low by global standards.

Interest payable edged up from £9 million to £15 million in the latest six months.

Analysis said Cable and Wireless shares had fallen in recent days, closing yesterday down 10 cents in Hongkong at \$5.15. They blamed concern among UK investors that the imminent \$4 billion Hongkong Telecom share placement would not be well received, hindering the company's chances of offloading further shares profitably in the future.

Market sources said several Hongkong brokers had advised their clients to switch holdings from Hongkong Telecom to the more lowly rated and diversified Cable and Wireless.

Cable and Wireless shares are trading on a prospective earnings multiple of about 14 compared with over 15 for Hongkong Telecom.

"For one thing, Cable and Wireless will get the proceeds from the Telecom offer and Telecom will get nothing," one analyst said.

#### **Hongkong Telecom's Growth Rate Continues Impressive**

55400028 Hong Kong HONG KONG MORNING POST in English 14 Nov 88 p 6 Business

[Article by Martin Winn: "Telecom Keeps Line on Growth"]

[Text] Late last month 100 of Hongkong's top government officials, industrialists and newsmen gathered in an office to watch two men, one of them on a live video screen, depress two shiny new buttons.

For the politicians, the symbolic opening of the Guangzhou-Hongkong Optical Fiber Cable System, ultimately capable of carrying 46,000 simultaneous telephone conversations, was a handy illustration that links between the territory and the mainland are more developed than ever.

But for the small delegation of Britons from Hongkong Telecom, which had joined forces with the Guangdong Posts and Telecommunications Bureau to lay the line, it was a guarantee of profits to come and another reason to feel confident the record \$4 billion share issue the company is springing on Hongkong in December will go smoothly.

"Telephone calls between Hongkong and the mainland have been increasing by 60 per cent a year," said Hongkong Telecom's deputy chief executive Terry Miller.

"China's expanding trade links with Hongkong mean plenty of new business for us."

By any international standards, Hongkong Telecom's growth rate in recent years has been spectacular.

In 1984, Hongkong's population spent 64.9 million minutes making international phone calls, the company's biggest money spinner. In the 12 months to last March they chatted away for no less than 234.5 million minutes on the company's 2.7 million phones. A quarter of the calls were to China.

Translated into hard cash, the figures are no less impressive. Turnover rose from \$3.6 billion to \$6.8 billion in the same period and pre-tax earnings almost tripled to \$3.6 billion.

Even more significant for prospective investors, its profit-margins—44 per cent of total sales in 1987-88, up from 29 per cent five years ago—are among the highest for a major company in the region, if not the world.

An accountant by trade, Mr Miller can scarcely disguise his glee at Hongkong Telecom's robust financial position.

The company is going into its estimated \$4 million share offering with \$2.6 billion in the bank and an almost irrelevant \$92 million of debt. The mountains of dollars it has invested in upgrading and extending its network—\$1.6 billion alone in the year to March, compared with \$800 million in 1984—have come almost entirely from internally generated cashflow, without recourse to borrowings.

"Capital spending will be about \$2.5 billion a year over the next three years and that is well within our cashflow projections," Mr Miller said. "We've got zero borrowings and they will not rise."

Of course Hongkong Telecom is luckier than most other publicly-owned companies.

In 1925 its domestic arm, Hongkong Telephone was granted the sole right to provide Hongkong's local telephone services and has jealously held on to its monopoly ever since.

Under a franchise granted in 1975 it was guaranteed freedom from competition in voice communications within the colony until 1995.

Cable and Wireless Hongkong, Telecom's international subsidiary, has had a similarly cosseted past.

It laid the first submarine telegraph cable into Hongkong in 1871 and has been treated generously ever since.

A licence granted in 1981 gives the company the exclusive right to provide Hongkong's international telecommunications facilities, including facsimile and telex services, until the year 2006.

With the rapid growth of Hongkong as a financial and trading centre, these international services have become Telecom's biggest money-spinner.

Last year they accounted for 36 per cent of total turnover, up from 25 per cent in 1984.

However, government regulations have prevented the company using its powers as a licence to print money.

Hongkong Telephone's after-tax profit cannot exceed 16 per cent of shareholders' funds. And as Hongkong Telephone gets 40 per cent of Cable and Wireless Hongkong's international revenues, it has had little scope to raise tariffs, now among the cheapest in the world.

During the last five years, certain charges have been raised by 10 per cent and there has been no increase since 1985.

"Any increase in tariffs will not come about just yet," said Mr Miller.

Telecom's international services are similarly subject to official edicts.

The royalty it pays to the Government is being lifted from seven per cent to nine per cent from October 1, a change that is expected to knock \$30 million of the group's profits in the current year.

There is another, potentially more threatening, cloud hovering near over Telecom.

In an attempt to foster an element of competition in the telecommunications industry, the government announced in July the consortium awarded the new Hongkong cable television franchise next year must provide a new telecommunications network in the territory.

This rival network would also be allowed to carry local data and fax transmissions, which fall outside Hongkong Telephone's monopoly. And it could challenge Telecom for the new domestic telephone franchise in 1995 and the international franchise in 2006.

A remote threat perhaps. But Hutchison Cable Vision, the long runner in the race for the cable TV licence after Hongkong Telecom dropped out last month, is taking it seriously enough.

"Our long-term goal is to compete in the areas of local and long distance telephone," Cable Vision's managing director Craig Ehrlich said recently.

Cable Vision which brings together British Telecom and companies controlled by Li Ka-shing and Sir Run Run Shaw, hopes the Hongkong telecommunications industry will be deregulated and that it may eventually be able to provide international phone services using the Asia Satellite, which is due to be launched in 1989 and in which Hutchison Telecom has a one-third interest.

It also has an eye on 1997. The influence of British-controlled companies such as Hongkong Telecom, largely owned by Cable and Wireless of the UK, is likely to fade after Hongkong reverts to the mainland.

But Hongkong Telecom chiefs are dismissive of the potential challenge to their monopoly.

They point out the Government has promised to open talks next year with Hongkong Telephone on the renewal of its domestic franchise in 1995, giving a rival network too little time to prepare a viable bid for the licence.

And they said the domestic fax and data services the second network was free to provide immediately would be barely profitable. Even Hutchison does not expect a pay-back on its cable network for eight years.

Some analysts are not so sanguine about the longer term picture.

"The duplication of the telecommunications network in Hongkong poses a potential challenge to the monopoly franchise holders," said Alice Hui of County NatWest. But she added that Hongkong Telecom's profits should be assured until its two licences expire.

Not that the institutional investors who will determine the success of Telecom's upcoming share issue will be bothered by such long term concerns.

Profits at Telecom are expected to continue climbing by about 20 per cent a year and revenues by about 16 per cent. Pre-tax profits in the latest six months to end-September were \$1.94 billion, up from \$1.64 billion in the same period last year.

Margins are seen continuing to improve, although inevitably at a slower rate than in the past. At the interim stage they were up to 45.2 per cent from 44 per cent in the previous full year.

"Telecom is a well managed company which is still to reap much of the rewards of its investment program," said one fund manager. "The share issue deserves to be well received."

**HK Telecom Sets Share Price in Large Offering**  
33400040 Hong Kong HONGKONG STANDARD in  
English 2 Dec 88 p 1 Business

[Article by Stephen Rogers]

[Text] In what must have been the worst kept secret this year Hongkong Telecom yesterday formally announced the placement price of \$4.55 per share for the 877.5 million shares which will be placed both locally and offshore.

The total placement will raise about \$4.2 billion for the controlling shareholders Cable and Wireless and the Hongkong Government.

About 575 million shares will be placed locally. Of this 445 million have been placed with institutions and another 105 million have also been provisionally placed. However, if there are sufficient applications from the general public then the 105 million shares will be allocated to the public offer.

On the offshore placements 202.5 million will go to the U.S. market while 100 million will go to other international markets.

If local demand in the public offer exceeds the 130 million shares then there is a provision for withdrawing 115 million—which is 20 per cent of the number of shares in the Hongkong offer—from the combined U.S. and international offer.

As confirmed by chief executive Mike Gale at last month's press conference both controlling shareholders have agreed not to place any more shares out until March 1990.

**Another Key Chinese Entity Invests in HK Telecom**  
33400044 Hong Kong HONGKONG STANDARD in  
English 28 Nov 88 p 1 Business

[Article by Michael Blendell]

[Text] Another key mainland entity has taken a modest stake in the company with the largest market capitalization on the local bourse, Hongkong Telecommunications.

The parcel is understood to represent about 0.5 per cent of the telecommunications giant's issued capital (its market capitalization is twice the size of erstwhile heavyweight Hongkong and Shanghai Bank) and therefore would involve some 30 to 60 million HK Telecom shares.

This follows the 10 million shares, that Guangdong Posts and Telecommunications—representing about 0.1 per cent of HK Telecom's then equity—picked up last June.

And Bank of Communications, a Chinese state-owned bank, recently launched a \$200 million bond issue with detachable warrants exercisable to a total of 20 million shares, or about 0.2 per cent, in HK Telecom.

These stakes must be viewed as a vote of confidence in the company and a sign of good faith in the territory by China, on the one hand; and as a tactical sale by HK Telecom parent Cable and Wireless plc on the other... although, at this stage, it is unclear whether the latest parcel comes purely from C&W or the Hongkong Government as well.

HK Telecom, of course, will next month offer between 713 and 788 million shares, representing 6.4 to 7.1 per cent of its equity, through a combination of private placement and public offer.

Ignoring the latest placement to the mainland entity, this would pare C&W's stake in HK Telecom to 76 per cent and Government's to 7 per cent.

The offer price and the exact size of each offer should be announced this week—or next at the very latest—at which time HK Telecom will doubtless identify the latest mainland source of interest.

HK Telecom shares, incidentally, finished 5 cents off at \$5.10 on Friday and it is understood that the offer is meeting solid institutional demand—particularly in the UK and U.S.—at the lower levels prevailing since the placement was first mooted.

**Land Fund Invests Stake in Telecom**  
55400041 Hong Kong SOUTH CHINA MORNING  
POST in English 2 Dec 88 p 2 Business

[Article by Martin Winn]

[Text] A China trust fund is taking up more than 10 per cent of the shares reserved for Hongkong institutions in the record \$4 billion placing by Hongkong Telecommunications.

The Hongkong SAR Government Land Fund is paying about \$250 million for 56 million shares of the 550 million available to Hongkong and British institutions in the territory.

Analysts said the purchase represented a show of confidence in Hongkong Telecom and partly explained the strength of demand for the share issue, which involves the worldwide sale of 877.5 million shares priced at \$4.55.

The total offer has been expanded from an earlier expected maximum of 787.5 million shares, largely because of the warm reception for the sale in Hongkong.

The Land Fund, set up in 1986 to help finance the provincial Government that will assume control of Hongkong after 1997, takes 50 per cent of the net proceeds of Hongkong Government land sales and is believed to have accumulated almost \$10 billion.

Most of its money is on deposit or in fixed income securities, and Hongkong Telecom is believed to be its first major venture into the local equity market.

Officials of the fund were unavailable for comment yesterday.

"Everyone is pleased to see China involved in the offer," said Hongkong Telecom deputy chief executive Terry Miller. "It is another sign of confidence from across the border. They obviously see it as a good investment."

The Land Fund's investment follows the purchase in June by Guangdong Posts and Telecommunications of 10 million Hongkong Telecom shares—about 0.1 per cent of the company's equity at the time.

Bank of Communications, a Chinese state bank, recently launched a \$200 million bond issue with warrants exercisable for up to 20 million Hongkong Telecom shares and has said it would like to raise its stake in the company.

Hongkong Telecom announced yesterday that the placing and underwriting of the share issue had been completed. Lead underwriters of the Hongkong portion of the offer will be paid a fee of 2.25 per cent and sub-underwriters 1.25 per cent, in line with recent major share issues in Hongkong.

All but 25 million shares of the 575 million shares for sale in Hongkong have been pre-placed with institutions, although up to 105 million shares can be reallocated to the public if the general offer for sale generates demand for more than 130 million shares.

The Hongkong offer can also be expanded by up to 20 per cent through a clawback of shares placed with U.S. and international investors.

American institutions will take 202.5 million shares in the form of American Depositary Receipts and 100 million shares will be placed internationally.

If necessary, the vendors—the Hongkong Government and Britain's Cable and Wireless—can give an additional 30.38 million shares to U.S. underwriters to cover over-allotments.

Another 15 million can be made available to international underwriters for the same purpose.

If all the options are exercised, the total number of shares offered could rise to a maximum of 922.88 million and bring the proceeds from the placement to \$4.2 billion.

Application lists for the shares close on December 7 and the basis of allotment will be announced on December 9. Share certificates and refund payments will be posted on about December 14.

Hongkong Telecom shares are expected to resume trading today.

**TVB Asked To Share Relay Posts With ATV**  
55400045 Hong Kong HONGKONG STANDARD in  
English 28 Nov 88 p 3

[Article by Victor Agustin]

[Text] The General Post office authority is expected to ask Television Broadcasts Ltd to share its relay stations with Asia Television Ltd when it meets the TV officials tomorrow.

According to licensing conditions announced on Tuesday, a single company can be appointed to maintain common facilities at a particular transmitter or relay station, with costs shared equally.

"The appointed licensee shall maintain common facilities in such a manner to ensure that no licensee shall have any operational advantages over the other licensee," the Television Ordinance said.

The announcement did not explain why the common facilities provision was included in the new licensing conditions.

It was understood it was so designed to prevent one station pre-empting another for the best transmission site.

The GPO has not officially decided which station has been appointed.

A TVB official, who asked not to be identified, said TVB had the best transmitting locations in the territory.

TVB had been the sole wireless station from 1967 until the then Rediffusion Television switched from wired to wireless service in 1973.

Along the years, the two stations built their relay stations side by side.

ATV and TVB have at least 12 relay stations each in as many sites.

The TVB official said that even before the new conditions, both stations had been sharing facilities.

These include the antenna, tower, building, standby generator "and other site amenities" in relay stations in Sha Tau Kok, Sha Tin and Lantau Island.

A GPO spokesman confirmed the "informal agreement" between the two stations.

"At present, maintenance of common facilities is arranged by an informal agreement between the two TV companies," the spokesman said.

"After the new broadcasting licenced come into force, the Telecommunications Authority will, under a licence condition, appoint responsibility to one of the two stations to maintain common facilities at individual transmitter sites."

According to the Television Ordinance, the relay stations are in Temple Hill, Castle Peak, Kowloon Peak, Lamma Island, Golden Hill and Cloudy Hill. Each has a standby transmitter with automatic changeover device, as well as standby generator which can restart transmission within a minute after a power cut-off.

The generator can maintain normal transmission for at least 48 hours after power interruption.

It is understood the GPO, as part of the telecommunications plan, has asked each station to build one transmitter a year until 1992.

**Hong Kong May Lead World in Digital Mobile Phones**

55400033a Hong Kong HONGKONG STANDARD in  
English 17 Nov 88 p 3

[Article: "Hongkong on Line to be Top of the World"]

[Text] Hongkong is likely to be a world leader in the use of the most advanced digital system for mobile phones, scheduled to be in operation in 1992.

Only starting to come on to the world market, Hongkong aims to import the digital system technology as soon as it is available.

Once in operation, residents would enjoy more efficient and higher quality transmission with hand-held phones.

The new system is also expected to increase two to three times the market potential of 120,000 mobile phone users allowed with the available frequency range.

There are four systems in use in Hongkong, all cellular systems with a capacity of about 30,000 customers each.

From the present growth rate, the number of users is expected to reach saturation point before 1992.

It is understood all three mobile phone companies—Hutchison Telephone, Communications Services Limited (CSL) and China Telephone (ChinaTel)—are interested in getting a licence to operate the new network.

The Government is running a feasibility study for the introduction of a system by 1992.

A decision has not been made on the number of operators that would be allowed, but a firm plan is expected within a year.

An estimated 45,000 people have access to hand-held phones, priced at about \$23,000 each.

The Post Office will be responsible for mapping out the technical standards and number of operators allowed with reference to market conditions in foreign countries.

Hutchison Telephone, which has about 60 percent of the existing market, is studying the technical implications of the digital system.

The company was recently granted a fourth mobile phone licence, which enables it to operate on the AMPS and TACS systems.

The company, which has about 26,000 customers using its existing AMPS cellular phone system, will start its TACS system in January.

Both CSL and ChinaTel use the TACS system.

**High Costs Bar Radio Links in Tunnel System**  
*55400042b Hong Kong HONGKONG STANDARD in English 29 Nov 88 p 5*

[Text] It is unlikely mobile phones will be extended to the Mass Transit Railway system.

Despite a rapid increase in the number of mobile phone users, a feasibility study has shown it would not be cost effective to extend antennae into the MTR tunnels.

Conducted by Hutchison Telephone, the study looked at boosting mobile phone radio waves into Hongkong tunnels.

Hutchison Telephone general manager Mr Jimi Lee said that besides technological problems, it was not cost effective.

"The technology is there, but it's economically not viable," he said.

Mr Lee said the MTR was too extensive, which made it hard to install equipment that would reflect radio waves into the tunnels.

"The cost (for basic infrastructures) will be too great to be cost effective," he said.

Another hindrance is that only the Island line carries appliances that could carry additional channels for radio signals.

The Kowloon networks do not have the necessary transmission lines.

But Hongkong's mobile phone companies are likely to extend their networks into the tunnels in the next few years.

A joint proposal is expected early next year for the installation of equipment in the Lion Rock Tunnel and later for the second Cross Harbour Tunnel expected to be opened by September.

**HK Telecommunications Giants in Mobile Phone War**  
*55400042a Hong Kong HONGKONG STANDARD in English 29 Nov 88 p 5*

[Article by Winnie Fu]

[Text] Hongkong's telecommunication giants are competing in a mobile phone race likely to still be going in 1997.

Estimates say that in 10 years, there will be as many radio phones as regular telephones.

Hutchison Telecommunications group planning director Mr Robin Maule said there would be no question of demand.

"The problems we have are size, weight and cost, and all these can be solved by technology," he said.

Mr Maule anticipates the "big brother" concept of owning a mobile phone would gradually disappear and that eventually a portable phone would be similar in price to a regular phone.

Hongkong's mobile phone market is dominated by Hutchison Telephone, Communications Services Limited (CSL) and China Telephone (China-Tel). The first two claim about 94 percent of the market. Hutchison Telephone is a subsidiary of Hutchison Telecommunications.

Since mobile phone users are limited by the range of radio frequencies, all three companies are keeping a watch on the latest developments in the hope of expanding markets.

A technological breakthrough is expected soon and the Government has reserved frequencies for the new digital system that could be installed in 1992.

Mr Maule said the concept of communications would be changed when mobile phones became more popular.

"Telephones would take on the personality of the person using it and a telephone number would be associated with each person," he said.

Provided it is smart enough, a portable system will be able to track a person and find their location, he said.

"It will change our perceptions and notions of lots of things," Mr Maule said.

In the future, people could stay home to do most of their work.

The global revenue from telecommunications amounted to US\$250 billion (about HK\$1,950 billion) a year with the top 20 companies sharing 80 percent of the total.

Asia, with half the world's population, had about 10 percent of the global revenue.

"The United States took about 50 years to get this way, and I believe Asia won't need that long," Mr Maule said.

Meanwhile, competition between Hutchison Telephone and CSL is hotting up as a new licence has been granted to Hutchison to operate a TACS system, which is usable in China.

Hutchison Telephone and CSL are approaching their capacity of about 30,000 users each.

But the 30,000 limit of the new system will fill quickly at the present growth rate of 25,000 subscribers a year.

"We could very well run out within a year," Mr Maule said.

Both companies are aiming at the new digital system which would largely increase their mobile phone market.

About three months ago, the Cable and Wireless (HK) introduced a new pocketphone, the most compact form of portable phone available so far in Hongkong.

Cable and Wireless (HK) is a subsidiary of Hongkong Telecommunications which also serves as an agency for CSL.

**Lam Called Likely To Take ATV Chairmanship**  
55400029 Hong Kong SOUTH CHINA MORNING  
POST in English 15 Nov 88 pp 1, 3

[Article by Lulu Yu: "Lam Likely To Take ATV Post"]

[Text] Mr Peter Lam Kin-ngok, a new owner of the restructured Asia Television, is expected to become ATV's next chairman when Mr Deacon Chiu steps down in May.

Mr Chiu, who faces conspiracy charges by the ICAC, has resigned as chairman and director of Asia Television.

His resignation will take effect on May 1, nearly three months after he is due to stand trial for conspiring to falsify records to the Far East Bank.

ATV's board of directors announced Mr Chiu's resignation yesterday but gave no explanation for the timing of it.

Mrs Selina Chow Liang Shuk-ye, ATV's chief executive, said the decision was entirely up to Mr Chiu and that the station's operations would not be affected.

"Although the ICAC charges did not relate to ATV, Mr Chiu considered it more appropriate for him to resign. It doesn't make a difference one way or the other because Mr Chiu has been a non-executive director since a new management team took over two months ago," Mrs Chow said.

ATV was hived off from ATV Holdings, of which Mr Chiu was chairman, when the Lam family of the Lai Sun group and New World Development each acquired one third of the station's shareholding in July.

Mr Chiu remained ATV chairman under the new ownership structure but it was understood that the chairmanship would go to Mr Lam and Mr Cheng Yutung of New World by rotation.

With Mr Chiu's resignation in May, it is expected that Mr Lam would become the new chairman of the revamped station, which is now managed by a team headed by Mrs Chow.

Mr Lam could not be reached for comment yesterday, but the ATV board said in a statement Mr Chiu had decided to resign as chairman from May 1.

"Mr Chiu considered that in the circumstances it would be best for him and his colleagues at ATV that he should distance himself from the affairs of ATV and should take no part in its management," said the board, which consists of representatives from each of the three major shareholders including Mr Chiu.

Mr Chiu's sons, David and Dick, and an executive from Far East Consortium are expected to continue their representation on the board despite Mr Chiu's proposed resignation.

Mr Chiu, accused of falsifying records of the Far East Bank relating to credit facilities worth \$120 million to 39 Hongkong and Indonesian companies five years ago, was remanded on \$5 million bail last Thursday. He is expected to stand trial on February 10.

Mr Chiu has been chairman and director of ATV since 1982, when his family acquired a 50 per cent stake in the station formerly known as Rediffusion Television (RTV) and changed its name to Asia Television.

Mr Chiu's son, Dennis, was made managing director of the station until he was convicted of killing a policeman in a road accident in 1983.

Mr Chiu senior has since taken a personal interest in all ATV matters and ran a tight operation which emphasised low costs.

In 1984, the Chiu family bought out their Australian partners in ATV and took full control of the company, which for years had failed to earn profits or catch up in the ratings race against Television Broadcasts (TVB).

When the Government announced new rules for the renewal of ATV's broadcasting licence earlier this year, the station moved to overhaul its corporate structure.

Notwithstanding ICAC charges against Mr Chiu, the Broadcasting Authority has given the go-ahead for the renewal of ATV's licence in December.

**CNN Targets Hong Kong's Cable Revolution**  
55400031 Hong Kong SOUTH CHINA MORNING  
POST in English 16 Nov 88 p 4

[Article: "CNN Homes in on Hongkong's Cable Revolution"]

[Text] The American election special at the Furama Hotel last week did not just signify a big day for George Bush.

For Cable Network News (CNN), part of the fastest-growing television operation in the US, it was its first live exposure in Hongkong.

Hongkong, of course, is on the verge of undergoing its own broadcasting revolution. And CNN has just set up shop in the territory with a view to playing a large role in it.

CNN, the 24-hour cable news station now ranked on a par with America's big three of CBS, NBC, and ABC, beamed Hongkong its live coverage of the Bush victory by satellite. Everything went to plan and now its next major coup is in the offing.

Given Government approval, all of Hongkong's major hotels could be taking CNN live round the clock by the New Year.

The signal will be collected at the Stanley satellite and converted by Cable and Wireless into microwave form for consumption by the hotels. It sounds like a matter of when rather than if.

"It looks very favourable now," managing director of Turner Broadcasting Far East, Mr Richard Hylen said. "It's been a long time coming and our original application was in 1985".

Of course, our good old civil service can be guaranteed to take three years when one would do, and the other big decision CNN is waiting for is on the cable issue. Whoever gets the programming licence, the station is keen to have its own 24-hour CNN channel as part of the deal.

CNN is best known in the territory for its Sunday afternoon World Report compilation. It is already admired as an objective, truly international news service.

British PM Margaret Thatcher has asked for cable to be run into Number 10 so she can watch it. It has 21 bureaux worldwide—Beijing and Tokyo in the Far East, with Hongkong a future possibility.

But its big brother, Turner Broadcasting, the giant corporation of tycoon and altruist Ted Turner, has many diverse irons in the communications fire.

Turner's most off-beat acquisition is of the MGM library, ranging from old Hollywood classics to Tom and Jerry. It was one of the pioneers of the controversial technique of "colourisation"—latest victim, Casablanca—which outrages the critics and promotes big profits.

The company has also started a new cable station, TNT, which will be producing original work, including star-studded drama series and documentaries, much of which is certain to find its way on to ATV and TVB.

"We came to Hongkong because the region is where things are happening now and we thought it deserved our attention," Piper Parry of the Hongkong office said.

"The US election was the first opportunity we had to do something visible here. It was a major accomplishment for us and we expect to be making progress here very soon."

What distinguishes Turner from probably every other TV mogul is his rather curious humanitarian streak. For no financial incentive, the man began the "Goodwill Games" concept and founded the Better World Society. His idealism seems to be brushed aside over here.

Mr Hylen said: "Our objective is to become a truly global network, the belief being that if people get a chance to see what goes on in the rest of the world, and see how other countries share the same problems, then the world will become a more understanding place."

**HSBC Goes Digital on Global Network**  
55400033b Hong Kong HONGKONG STANDARD in  
English 17 Nov 88 p 8 Business

[Article by Bryan Delaney: "Bank Goes Digital on Global Network"]

[Text] Eight years after embarking on a worldwide communication strategy, the Hongkong and Shanghai Banking Corporation (HSBC) is implementing a fully digital network to support its operations on a global basis.

The bank's new Group Wideband Network complements its existing global telegraph and analogue packet switching networks and will allow it to make use of high bit rate applications such as voice and teleconferencing.

"It is my belief that we have done a lot to pioneer global communication in the banking industry," said Tim Cureton, HSBC's manager group networks. "In 1980 it had very little in the way of international communications but five years later the bank's network had become one of the biggest in the world, in terms of the number of simultaneous circuits."

Mr Cureton says that until recently HSBC has been kept quite happy within the analogue telecom environment, leasing data quality channels over submarine cables and satellite links. In the last two years, however, the fall in the price of bandwidth together with new application requirements have combined to make the new digital network a viable proposition.

"With the globalisation of the Hongkong Bank we need to connect our major regional computer centres together with the main head office systems to do things like high volume file transfer," said Mr Cureton. "We are engaged in a number of global projects particularly to do with ATMs and various internal applications that require high speed data communication. In addition there are a number of Treasury systems that are being expanded on a global scale. These cover areas such as equities, bonds and commodities in which voice communication is heavily involved."

"Putting all those things together we decided that it was time to take the next step—after telegraphy and packet switching—which is an integrated voice/data network for high bit-rate applications," said Mr Cureton.

The new network is based on equipment supplied by the General Data Comm Corp, and currently links ten locations in Hongkong, London, New York and Tokyo.

"We have plans to increase the size of the wideband network by about half again over the next couple of years and spread it to places like Edinburgh, Paris, Singapore, Kuala Lumpur, Sydney, Melbourne, Dubai, Chicago, Vancouver and Toronto," said Mr Cureton. "By then we should effectively have a private integrated services digital network that will allow us to do video conferencing and all that."

Mr Cureton explained that the GWN will also act as a global backbone for HSBC's existing telegraph message and packet switching networks.

The bank currently operates seven switching hubs that channel telex messages to HSBC subsidiaries in 55 countries. According to Mr Cureton the 200 terminal network handles around 2 billion characters per month. Much of this traffic is carried over HSBC's packet switching network which was installed between 1985 and 1986.

"Our Group Data Network is perhaps slightly bigger than GEISCO's and covers 28 countries and with 128 packet switches. It links our large mainframe centres in Hongkong, the United States, Malaysia and Singapore along with 35 IBM System/38s and other minicomputers located elsewhere," said Mr Cureton.

## INTERNATIONAL

### Plans for GCC Mobile Telephone System Discussed

55004503 Kuwait ARAB TIMES in English  
6 Nov 88 p 4

[Article by Lima Al Khalafawi]

[Text] A seminar on cellular telephone systems in the Gulf Cooperation Council (GCC) states was opened yesterday at the Meridien Hotel by the Kuwaiti Minister of Communications 'Abdallah al-Sharhan.

The seminar will focus on long-term plans for GCC mobile telephone systems.

The seminar is being attended by delegations from GCC states and the Mobile Telephone Systems Co (MTSC) and representatives from the Ministry of Communications.

Al-Sharhan said that the role of mobile cellular phones should be enhanced, due to their significance in the social life of Gulf nationals.

He said that GCC states are working to upgrade cellular phone systems to the highest standards. He said he hopes that the two-day meeting will lead to a joint GCC system.

MTSC Managing Director and Board Chairman 'Abdallah al-Sabbagh said he hopes the conferees will decide to establish a joint mobile phone system, so that a Gulf national can use his cellular phone in the six GCC states.

Al-Sabbagh said that the world scene in the second half of the 20th century dictates that small countries with common goals join hands.

Today's world is witnessing a "real revolution" as far as mobile communications are concerned, he said. More and more people want to own this sophisticated instrument.

#### Revolution

The MTSC chief said the company wants to make the ownership of a mobile phone as easy as owning any common household appliance like a television or refrigerator.

To benefit from the expertise of pioneer countries in this field, Al Sabbagh noted, the MTSC sponsored this seminar to offer the highest amount of information on the mobile telephone service and to exchange expertise with the other GCC states.

Radio Base Stage Manager of MTSC in Kuwait, Khalid al-Hajari, spoke about MTSC's future plans, including the expansion of existing services and the introduction of new services and products.

The existing cellular system cannot take more than 20,000 subscribers, he said. The company hopes to expand the system's capabilities to accommodate 20,000 more customers.

Plans for paging and voice services are under way, he said. A mini-paging system with limited coverage is operating today and provides numeric and alpha-numeric paging service to 500 subscribers.

A nationwide paging system will be commissioned in April 1989, he said. The main system will provide numeric and alpha-numeric display and voice messaging services.

The alpha-numeric paging service will permit display in both Arabic and English characters. The pages will have a display screen with a capability of 80 characters, he said.

MTSC also plans to establish a trunked radio system that permits shared use of many frequencies among a large number of subscribers of various firms such as transport companies, construction companies and government organisations, he said.

MTSC is also pursuing the introduction of an applied financial services network and is discussing the proposal with banks, investment firms and commercial organisations to determine the feasibility of the network.

Basically, the network would permit credit card verification on limits and validity of cards for local or international issuing, debt card charging at the point of sale, and control of automatic (electric) fund transfers.

Al-Hajari promised that MTSC will continue to provide the latest in telecommunications services for Kuwait, with a commitment to quality and diversity of services.

L. Peters, general manager of operations at MTSC in Kuwait, said that in the Middle East, and Kuwait in particular, mobile telephone service has been provided for personal and business use.

That means that many people will use the mobile telephone for periods of time that are not consistent with business usage time.

#### Busy

Although the cellular service does advertise the ability to serve 100,000 or more customers, the average length and frequency of calls during busy hours must be taken into consideration, he said. These considerations demand careful study of the market and guaranteed performance from the equipment provider, he said.

Peters added that the solution to the problem of increasing capacity lies in advanced digital transmission technology.

Digital transmission is not as susceptible to interference as its predecessor. Digital transmission provides many benefits, he said. Generally, digital equipment consumes less power and service costs are lower, he said.

#### Access

The telecommunications network of the future will provide users with two types of access arrangements: fixed access via a wire-based network and moving access via a radio-based Cellular Access Digital Network (CADN), Peters said.

The technical aspects of digital concepts should bring the price of mobile telephone service within reach of a large segment of the population, he said. Presently, only 1 percent of the population subscribes to the service. It's high cost is the main reason for this low ratio of subscription, Peters said.

The seminar will continue tomorrow with lectures by a host of experts on the unification of mobile telephone systems and the new European system of mobile communications expected to be adopted in European countries by 1991.

### IRAN

#### Satellite Telecommunications Network To Be Established

55004701 Tehran KAYHAN INTERNATIONAL in English 12 Nov 88 p 2

[Text] A satellite telecommunications network is to be established in the country in the next two years to cover the remote and deprived villages, post, telegraph and telephone minister said Friday. Muhammad Gharazi who is currently here to inaugurate a telephone center, said the existing microwave systems erected in 56 spots of the country are not sufficient for linking the remote villages and mountainous areas with regard to the vast territory of Iran. The capacity of the country's telecommunications network will double to more than four million telephones in the next four years, Gharazi said. Up to 1981, Gharazi said, 70,000 telephone numbers were provided to new subscribers, but the figure has now exceeded 200,000. He expressed hope that the figure will also exceed 300,000 by the end of the current Iranian year (20 March 1989).

### SAUDI ARABIA

#### New Factory for Telecommunications Equipment Described

55004504 Jeddah ARAB NEWS in English 12 Nov 88 p 3

[Article by Francis McKenna]

[Text] Jeddah, Nov 11—Saudi Cable Co. (SCC) is now busy preparing for the 21st century. Work is well underway on SCC's new multimillion riyal telecommunications factory at Jeddah Industrial City. A three phase

project, SCC plans that copper telephone cables, then optical fiber cables and, finally, electronic telephone network equipment will be manufactured at the new factory.

Muhammad Helmi Kutbi, Assistant Vice President of the SCC Telecom Cable Plant, told ARAB NEWS: "Work started on the new factory on May 21 this year. When complete, by mid-March 1989, the factory will cover 37,500 square meters and employ 150 workers."

Production of copper telephone cables, from one pair to 2,400 pairs, is slated to start in February 1989 with partial capacity and pick up thereafter. Full capacity should be achieved by the second quarter (May-June) of 1989, according to Kutbi.

Initial capacity for copper telephone cables is 1.6 million conductor kilometers per year. The potential to increase to 2.5 million conductor kilometers is available depending on the market.

SCC has supplied the Kingdom's Ministry of Posts, Telegraphs and Telephones (PTT) with 200,000 conductor kilometers of telephone cable over the last nine months and has just won another PTT order for a further 250,000 conductor kilometers over the next year.

Technical partner for the telephone cable phase of the project will be Nokia of Finland. Kutbi said: "Nokia will supply machinery and supervise installation and commissioning. They will also assist in training. Already 10 SCC personnel have been trained in Finland this year. Three Nokia people are here now supervising installation."

Negotiations are currently underway to select a suitable technical partner for the second phase of the project, the production of optical fiber cables. Kutbi said: "Production will commence by the end of 1989. We have been slightly delayed because of rapidly changing technology. We are trying to collaborate with a partner who can supply the next generation of optical fiber cables. SCC wishes to stay ahead of the game in order to supply the integrated GCC market with both optical fiber and copper telephone cables."

Passing messages by means of a light signal or reflected rays of sunlight from a mirror has long been known to man. With the advent of optical fiber about a decade back, optical telecommunication networks started to be manufactured and installed on a commercial basis. They enjoy a record for reliability while meeting the mounting need to transmit much more information at a time. Four major advantages are associated with optical fiber cables over their competitors, the traditional metallic cables. Optical fiber cables offer: 1) wide bandwidth capability; 2) minimum transmission loss; 3) light weight; 4) low comparative cost.

Kutbi continued: "Optical fiber cables will one day replace some of the junction and primary copper cable in the kingdom's national telecommunications network. Optical fiber cables offer particular advantages in providing a large transmission capacity and taking care of future requirements."

Not only that. Optical fiber cables also open up the possibility of seeing an Integrated Services Digital Network (ISDN) in the Kingdom. First conceptualized in the early 1970s, Kutbi explained that, "ISDN, as an infrastructure for an advanced information society, is being introduced by countries worldwide. ISDN provides different forms of information such as audio, image and data through a single digital network integrating the telephone, data, facsimile and other networks which were all originally developed independently." Home banking for all is just one futuristic ISDN application.

The third phase of the project will focus on the manufacture of electronic component essential for telecommu-

nication purposes such as transmitters, receivers, multiplexers and amplifiers. It is anticipated that electronic production will commence after optical fiber cable production starts. Negotiations with potential technical partners are currently proceeding.

Turning to the question of technical manpower, Kutbi said: "Our object is to Saudize the new factory." He pointed to the major achievements of SCC since its founding back in 1975 and emphasized the presence of a strong and capable Saudi technical cadre within the company's ranks.

Kutbi also made a promise for the future. "SCC enjoys an enviable reputation for the quality of its products. Our primary objective is to manufacture cables to the highest possible standards. Our ambitions and objectives can only be achieved by developing a reputation for the manufacture of telephone cables following our success with power cables."

## EUROPEAN AFFAIRS

**Joint European Data Network Company  
Announced**  
55004028 Luxembourg IES NEWS in English  
Oct 88 p 1

[Article: "Joint European Telecommunication Service"]

[Text] Twenty-two European telecommunication administrations and operators of public networks and services from CEPT [European Conference of Postal and Telecommunications Administrations] countries reached an agreement in Berlin on the 8th of September in which they declare their intent to establish as soon as practicable a joint limited liability company with the objective of providing customers and users with comprehensive telecommunication services for intra- and intercorporate communication.

The company shall provide managed data network services (MDNS), including access and interfacing facilities, gateway services, network management and one-stop-shopping for data communication services using public switched networks or leased circuits.

MDNS will be marketed by administrations or public operators to their customers, with support given by local offices of the MDNS company. In some countries, marketing will be performed by the MDNS company itself, where national operators prefer this approach.

The MDNS company will be incorporated in the Netherlands. The site of the headquarters of the company will be determined at a later stage.

A final decision about the establishment of the company is expected to be taken in early 1989 when all outstanding formalities are resolved.

The MDNS initiative reflects the commitment of European telecommunications administrations and operators to provide efficient and cost-effective universal telecommunications and to utilise the existing and future telecommunications infrastructure in the most efficient way to the benefit of European industry and European society at large.

Signatories included the PTT administrations from all the 12 European Community countries, as well as Austria, Finland, Iceland, Switzerland, Norway, Sweden and Cyprus, and commercial operators such as Italcable and Mercury.

## FINLAND

**Oulu 'Teleport' To Serve City's Technology Center**  
55002418 Helsinki HELSINGIN SANOMAT in Finnish  
7 Nov 88 p 33

[Article: "Teleport Coming to Oulu: Teleconferences Available in Early 1990's"]

[Text] Oulu—Finland's first "teleport" is being planned for Oulu. The teleport mainly offers business firms the opportunity to arrange teleconferences in which the negotiators are in different localities, even different countries.

By means of the port's telecommunications lines, it is also possible to regulate production in real time or even send software to another part of the globe. The new communications are also cheaper than ordinary telephone calls.

The PTL-Tele and the local phone company are negotiating over establishment of the teleport in Oulu. Permission for it is needed from the National Board of Post and Telecommunications. It is believed the port will be operating in the early 1990's.

Two teleports operate in Europe, one in London and one at the Metz technopolis in northern France. In the United States there are dozens of business firms which offer the data communications services of their teleports.

More than 70 teleports are right now being designed or constructed throughout the world. Experts believe that the teleports will reduce the future cost of data communications by as much as one-half.

Juhani Oksanen, professor of data communications technology describes the Oulu teleport: "International forecasters in the field believe that teleports will attract the same sort of economic activity that harbors and airports once did.

"Creation of the teleport and its swiftly outgoing communications is the information society's highway, new infrastructure. Formerly, society built roads on which kilograms were conveyed. Now lines of communication are built on which kilobytes are conveyed," Oksanen notes.

Oksanen would place the teleport in the context of Oulu's technology center. In the center right now there are roughly 100 business firms which might possibly use the teleport. The university, Nokia's research center, and the State Technical Research Center are being built nearby. Other users are the big companies that operate in several localities, in Finland and abroad.

The village can be furnished with a production studio that costs just under 300,000 markkas. For example, another studio—one in which some of the conference participants sit—is needed in Helsinki. When the technology becomes cheaper, each firm will have its own studio.

By means of the teleport, the scattered research-and-development centers of business firms can be in contact with each other. Teleconferences make it possible to avoid travel and save expenses.

Business firms can direct their production processes from afar so that, for example, the preservation of parts or components in warehouses virtually ends.

The firm can even send a program from the circuit disk to California to be worked on. That way a week is saved.

The teleport recently established in Metz gives new life to the technopolis there. The French Telecommunications Administration has granted permission for it and supports operations on the basis of regional development.

"If Oulu gets a teleport the same way, firms in northern Finland will get data communications services to various parts of the world at approximately the same price as firms in Helsinki," says Pertti Huuskonen, managing director of the technology village.

Use of the teleport is already practiced in the video studios of the Oulu PTL-Tele, but not all firms know how to use its services yet. Some firms also fear that information may get into the wrong hands.

Communications with foreign countries take place initially via Helsinki's Pasila satellite station.

"In the future, there will be such an increase in teleconferences and other services that a second or additional earth stations will be needed," says Heikki Kangas, assistant director of the PTL.

#### **Nokia-Mobira Expanding Production Capacity With New Plant**

55002423 Helsinki HUFVUDSTADSBLADET in Swedish 25 Nov 88 p 15

[Text] Nokia-Mobira is going to increase its production of mobile telephones in Finland. For this purpose a new production unit is planned for Tampere. Nokia-Mobira stated that recruiting and training of personnel will start immediately. By the end of next year, the number of production personnel will reach 200.

Nokia-Mobira has been searching for a plant location in both Finland and abroad in order to increase production. In Finland it was found that Tampere offered the most attractive conditions, with regard to both labor force and space. Nokia already has a research unit in the Tampere area Hermia.

Nokia-Mobira produces mobile telephones already in Salo and Aasekoski, as well as in South Korea and France. The planned unit in Tampere will mainly operate as a deliverer of components to the plant in Salo.

Nokia-Mobira is among the world's leading makers of mobile telephones. Its share is 13.9 percent. A spokesman with Nokia stated that the increasing use of mobile telephones in business has recently caused a growth in demand for new production capacity.

### **IRELAND**

#### **Telecom To Invest in Transatlantic Cable Link**

55500027 Dublin IRISH INDEPENDENT in English 25 Oct p 12

[Article by Gene McKenna: "Telecom To Spend 20m. on US Link"]

[Text] Telecom Eireann is to invest 20 million in a private transatlantic telephone cable, Communications Minister Ray Burke said yesterday.

Mr. Burke was speaking at the inauguration of the optical fibre cable between Portmarnock and Holyhead, which he called "a significant milestone in Ireland's technological revolution in telecommunications."

Telecom Eireann said the new cross-Channel submarine link would greatly enhance the quality and security of telecommunications traffic in and out of Ireland.

Using laser-generated pulses of light, the cable carries voice, text, facsimile, data telex, TV and video signals, all of a much higher level of quality than possible using earlier technology.

The transatlantic cable Telecom will be investing in next year was originally supposed to run direct from the US To Britain, but Telecom would now have a spur in the cable to a landing point on the Cork coast, said Mr. Burke.

The cross-Channel cable the first to be provided for about 40 years. The last was in the late 1940's and it had only a fraction of the capacity of the new one.

The cost of the cable is being shared equally with Britain but half of Telecom's share of the cost of the will be met by the EC's STAR programme, said Mr. Burke.

## ITALY

### Telecommunications Sector To Reorganize 55002421 Rome LA REPUBBLICA in Italian 20-21 Nov 88 p 41

[Article by Giovanni Scipioni]

[Text] Rome—The "Super Stet" plan is ready to get off the ground. The go ahead for the operation was given at an important secret meeting of the Christian Democratic leaders which took place last Tuesday at Palazzo Chigi [office of the prime minister]. It gave the green light for a well designed project which apparently covers in detail all organizational and programming requirements and, at the same time, satisfies the original conditions outlined by Prodi and Graziosi. Present at the meeting—under the leadership of De Mita—were all the leaders of the Christian Democratic party: Vice-Secretaries Brodato and Scotti, Under-Secretary to the Presidency Misasi, Minister of Government Participations Fracanzani, leader of the political secretarial staff Gargani, and party leader—in charge of government participation—Legu. After many hours of debate, the plan has been definitely activated. LA REPUBBLICA is now able to preview it.

The new reorganization of the Italian telecommunications sector encompasses a Super Stet conglomerate incorporating three sectors: telephone communications, manufacturing, and telematics. The telephone sector will be comprised of only one company, Super Sip, which will be one hundred percent controlled by Stet.

Merged with Super Sip are Italcable, government owned companies, and Telespazio. This will truly be a merger. In fact, Super Sip will have only one administrative council. The manufacturing sector, which includes companies like Italtel, Sirti, and Necry, will also be 100 percent controlled by Stet. This sector was not integrated with the telephone sector—as some wanted—because there is a government law requiring that they be separate. And finally the telematics sector will include Seat, Televis, and Teleg; these companies will be offering competing services. This is in essence the industrial plan. But there is more. At the meetings at the palace of Piazza del Gesù it was decided to register only Stet on the stock market so as to avoid the accusation of stockjobbing. Therefore Sip and Italcable, which are presently quoted on the stock market, will disappear from the list of quoted stocks. It seems obvious that in order for this to take place the two companies stocks will have to be eliminated; both companies will be merged with Stet, and thereby dissolved. At the end of this procedure Stet will appropriate 100 percent of Sip and Italcable stocks, and the two companies will then join SuperSip. The plan worked out by the DC leadership puts at the head of

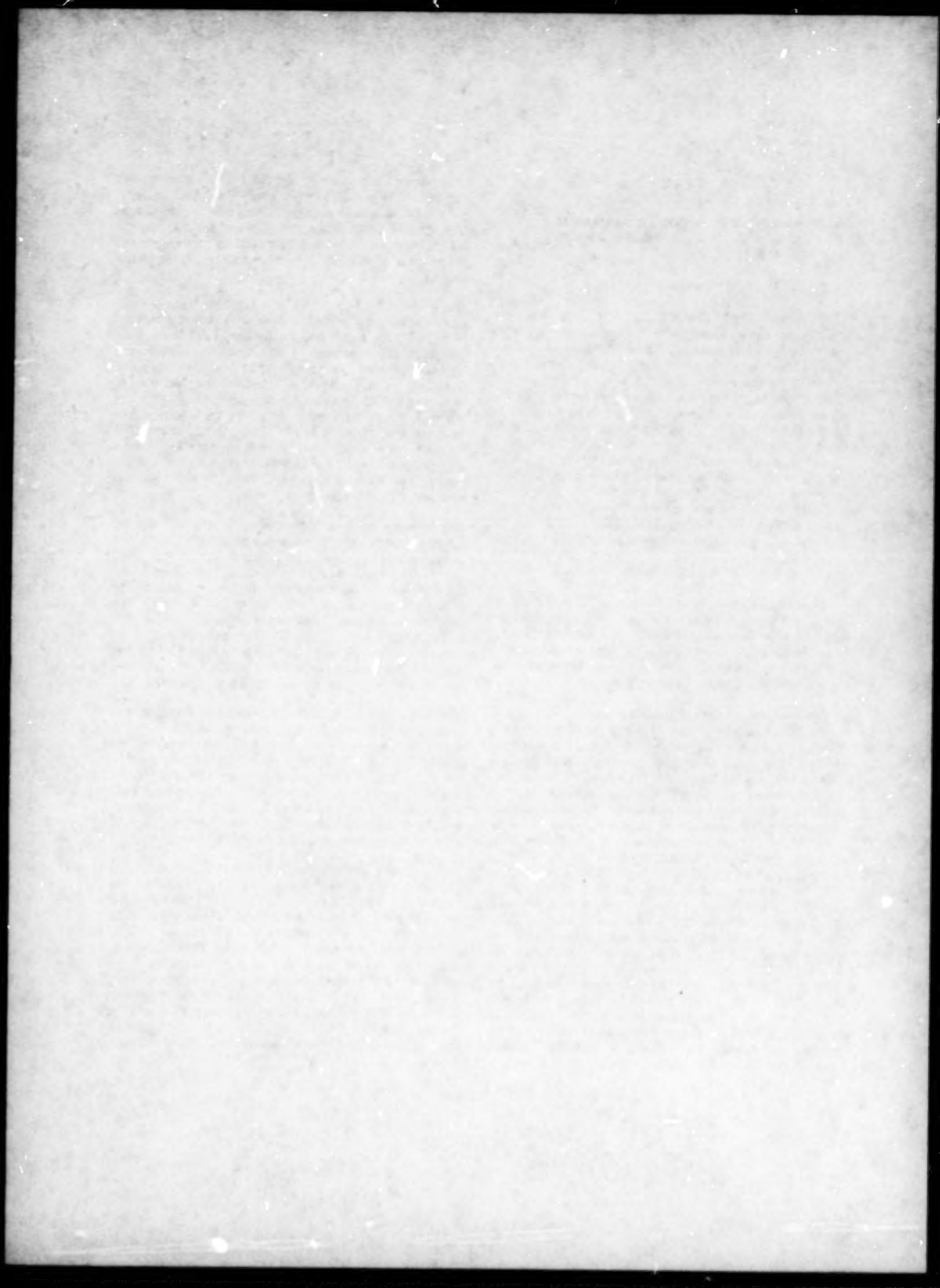
telecommunications the Iri company [Stet] which retains its status, but graduates from being the leader of company subdivisions to being the leader of entire companies. This is a significant step forward for this process which, until yesterday, was hindered by the temptation on the part of political parties to further subdivide the industry.

The decision on Super Stet—or Telecom Italia—could greatly accelerate the choice of an international partner for Italtel. This matter also awaits a political decision on the proposals submitted by the American AT&T, the German Siemens, the French Alcatel, and the Swedish Ericsson. As this awaits a solution, the Council of Ministers should approve, by the end of the month, the bill that allows the transfer of government companies from the Post Ministry to IRI. This transfer is essential for the birth of Super Stet. The bill has been ready for a long time but was stalled awaiting an agreement on Super Stet. After the the DC meeting on Tuesday, approval will be forthcoming.

The Ministry of State Participation is also tackling the Enimont case. The chemical colossus created by the merger of Montedison and Enichem awaits the final approval of Fracanzani. The minister has assured that the decision will be taken by the end of the month. The requisite documents arrived at his desk last Friday. The minister for state participation has assured that the case will be carefully and rigorously examined within a short period of time. He will verify whether or not his last August directives on investments and employment and on plans after the first three years have been enacted.

Minister of the Environment Ruffolo has also given his favorable opinion. "I don't see obstacles to your approval," he writes in a letter to Fracanzani. Ruffolo explains that the approval does not prevent the government to consider additional actions regarding future strategy in the chemical sector. In any event, these strategies "require compatibility between environment and the development of the South. Public support should be subordinate to this compatibility."

Formica, too, has intervened in the Enimont case. For the minister of labor the operation could represent the revival of the Italian chemical sector; but the operation presents perplexing social problems, it raises questions on the role of the new company in the European context, on the means of controls, and on costs. Giorgio Benvenuto, secretary of the UIL, also has warned of the possible risks "in this type of merger." The labor union worries that Enimont plans only the development of Sicily and the Po Valley. The Enimont case will be discussed on November 29 by the two-chamber commission on government participations presided by Biagio Marzo.



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